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**AUTHOR** Banaszak, Ronald A.; Clawson, Elmer U.  
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## ABSTRACT

This guide contains concept-based lessons and activities in economics for use with students in grades 7-9. One component of a two-part publication, the guide demonstrates how the conceptual structure of the economics discipline presented in the first publication (ED 148 648) can be used to help students at the junior high school level make more effective economic decisions. By selecting lessons to supplement existing courses or texts, teachers will be able to upgrade the quantity and quality of economics instruction. The concepts taught are: economic wants, scarcity, opportunity cost, productive resources, division of labor, interdependence, efficiency, exchange or trade, money, supply and demand, market price, price mechanisms, consumer price index, price level change, index numbers, inflation, and gross national product. The first part of the guide contains ten classroom tested lessons. Each lesson includes a description of the concepts to be taught, objectives, rationale, student materials, teaching procedures to be used, and evaluation methods. Most of the activities include group interaction and discussion and involving students in games and role playing. The second part of the guide contains a comprehensive unit based on a case study of the U.S. shoe industry. The unit consists of eight lessons that take a total of about two weeks to present. However, teachers can adapt it or shorten it according to their own requirements. The guide concludes with two appendices--a list of books, films, and other supplementary materials and a glossary of economic terms. (Author/RM)

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# Part II Strategies for Teaching Economics:

## Junior High School Level (Grades 7-9)

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Ronald A. Banaszak, Chair  
Elmer U. Clawson



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## ABOUT THE AUTHORS

**Ronald A. Banaszak** is assistant professor of education and director of the Center for the Development of Economics Education, School of Education, University of the Pacific, Stockton, California

**Elmer U. Clawson** is associate professor of the Department of Curriculum and Instruction, University of the Pacific, Stockton

tion and chairman, School of Education, University of the Pacific, Stockton

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Director of Publications: Lawrence A. Mayer  
Staff Editor: Ester Moskowitz

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## Foreword

*Strategies for Teaching Economics* is one component of a two-part publication entitled *Master Curriculum Guide in Economics for the Nation's Schools*. Part I of the guide, *A Framework for Teaching Economics: Basic Concepts*, presents a conceptual structure of economics and provides examples of how that structure can be used to reach a more thorough understanding of economic questions and to assist in personal decision-making. Part II, *Strategies for Teaching Economics*, demonstrates to educators how the conceptual framework can be taught at various grade levels: primary, intermediate, and secondary. It is published as several volumes in order to meet the different needs of the entire K-12 curriculum that confront both teachers and curriculum development specialists.

The Joint Council greatly appreciates the excellent cooperation given to us by the many universities and school systems associated with the development of these curriculum strategies. We are especially indebted to the individuals who drafted the materials. While we make no claim that the lessons included have been evaluated under all classroom conditions, we believe that the lessons will work at the designated grade levels. We consider the existing volumes as working documents and expect to publish revised editions.

The Master Curriculum Project has been made possible by generous contributions from many dedicated sponsors. We appreciate the confidence they have expressed in the economic education movement. The present volume was made possible through the generosity of the Foundation for Teaching Economics.

We firmly believe that *Strategies for Teaching Economics* can serve teachers well as practical guidelines for building economics lessons into existing curricula. Properly used, the Master Curriculum Guide is a powerful device for accelerating economics instruction at all grade levels.

MICHAEL A. MACDOWELL  
President, JCEE

# Preface

The Master Curriculum Guide (MCG) is designed to assist in curriculum development. School systems or individual teachers can use it as a resource document to present economic education in the K-12 curriculum. Part I provides a framework for teaching economic ideas while Part II presents detailed classroom lessons illustrating how these ideas can be taught at different levels of difficulty. Thus, the MCG indicates what economic ideas should be taught, in which classes they can be taught, and how they can be taught.

By judiciously selecting lessons from the volumes of teaching strategies, teachers can systematically introduce or increase or upgrade economics instruction in their existing courses. All the lessons are ready to be used as presented, but those teachers who have had economic education training can readily modify any lesson to fit the special needs of their own classes. Once teachers have mastered a lesson, they can easily use it in existing courses or as a supplement to material in textbooks.

The MCG is an outgrowth of the Developmental Economic Education Project (DEEP). Working documents produced for the DEEP experiment in curriculum change conducted between 1964 and 1969 included the "two little red books," as they were called in the field: one was a statement of economic concepts to be taught as outlined in the *Task Force Report on Economic Education in the Schools* (1961), and the second offered some suggestions for grade placement of the concepts. These materials were later fashioned into a single volume entitled *Economics in the Curriculum*. During the 1960s and early 1970s these three publications were extensively used, especially by schools associated with the DEEP Cooperating Schools Program. Literally hundreds of curriculum guides and lesson plans were developed on the basis of the DEEP publications, and through them thousands of teachers and students were introduced to economic education.

During the 1973 meetings of the National Association of Affiliated Economic Education Directors, many Council and Center directors urged the Joint Council to undertake what later became known as the Master Curriculum Guide Project. It took three years for a committee headed by W. Lee Hansen to develop *A Framework for Teaching Economics*. At the same time, several curriculum groups were established. They were headed by the individuals whose names appear on the published volumes of teaching strategies. Each curriculum group was responsible for a first selection of those economic concepts that could be most usefully taught in a specific grade level and subject. June V. Gilliard, director of curriculum for the Joint Council, contributed importantly to the design of the teaching strategies in each volume and prepared the Lesson Evaluation Form. Ronald A. Banaszak, head of the Advisory Committee for the present volume, expresses his thanks to the individuals who have given him special assistance in the Acknowledgments that follow this Preface. We are indebted to him and his associates for this volume. Members of the Joint Council staff who materially helped to prepare the final version include Dr. Gilliard, Lawrence A. Mayer, Ester Moskowitz, and Michael A. McCullough.

S. STOWELL SYMMES  
*Director, School Services Division  
Coordinator, Master Curriculum Guide Project*

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Many others helped conceive and prepare this publication. Chief among them were the members of the Advisory Committee:

Suzette Arnes, teacher, Jackson Senior Elementary School, Jackson, California  
John W. Ashley,\* economist, California State University, Hayward  
Elaine Benen, graduate assistant, University of the Pacific, Stockton, California  
June V. Gilliard, director of curriculum, Joint Council on Economic Education, New York, New York  
Sharryl Hawke, staff associate, Social Science Education Consortium, Boulder, Colorado  
Robert Highsmith, director, Economic Literacy Council of California, Long Beach, California  
Larry Little, associate director, Economic Literacy Council of California, Long Beach, California

Tapan Munroe, economist, University of the Pacific, Stockton, California  
Dwain Myers, department chair, Lincoln East High School, Lincoln, Nebraska  
Jonathan Pearce, assistant superintendent, Lincoln Unified School District, Stockton, California  
Robert Pratt, director, Junior High School Project, Foundation for Teaching Economics, San Francisco, California  
Micaelia Randolph, freelance editor  
Lois Silva, principal, Sacred Heart School, San Francisco, California  
Linda Welin, editorial assistant, Center for the Development of Economics, Education, Stockton, California  
William O. Woolley, research assistant, University of the Pacific, Stockton, California

In addition, the teachers named below tested lessons in their classes. They gave unselfishly of their time and effort. Their evaluations were very important to the writing of this guide and their comments led to a number of significant changes. Much gratitude is owed them.

#### CALIFORNIA

Yvonne Gillmore, Stockton  
Warren McCuaig, Jackson

#### COLORADO

Jerome Forkner, Denver

#### MINNESOTA

David Martin, Minneapolis

#### NEBRASKA

Marge Hanna, Wauneta

#### NEW YORK

Sally Blackmer, Honeoye

Gloria Sesso, Greenlawn

#### OHIO

Rick Bensman, Worthington  
Nora Lewis, Cincinnati

Sharon O'Connell, Cincinnati

Charles Palmer, Worthington

Avril Tracey, Cincinnati

Susan Wallace, Cincinnati

#### PENNSYLVANIA

Rosemary Bieg, Aston

#### RHODE ISLAND

Barbara Tattersall, Cumberland

#### TENNESSEE

Mary Ann Brady, Nashville

#### VIRGINIA

Joanne Lonergan, Springfield

Diana Vericella, Alexandria

Fay Waggoner, Falls Church

RONALD A. BANASZAK

ELMER U. CLAWSON

*University of the Pacific*

\*Deceased.

# Overview and Rationale

By the time they reach the junior high school grades, students have become active participants in the economy. They all make buying decisions, and many are or soon will be part-time wage earners. Some may have savings accounts or similar holdings that bear interest; a few may even own stocks or bonds. Students at these ages may also be starting to formulate career plans. Because junior high schoolers are beginning to make so many decisions involving economics, they need some systematic understanding of economic principles and of how markets operate in order to reach the best possible decisions.

Economics has considerable value as a subject for study in junior high schools.<sup>1</sup> Obviously, it can help junior high school students in a practical sense. Systematic study can also help them to improve whatever understanding of economics they have already achieved. If the students have had previous instruction in economics, they can take up at a new level of complexity questions such as how production decisions are made, how prices are determined, why trade takes place, etc. If they have had no previous instruction, they can cover the basics fairly rapidly.

Junior high schoolers are also at an age in which they may be becoming interested in the nation's economic problems—*inflation, unemployment, the energy supply*. They may be wondering about the role of taxes, the reasons earnings in one occupation differ from another, why some of the products they use come from abroad.

All the knowledge and questions of the students can be used to enhance their understanding of economics. By correcting, organizing, and clarifying what is already in or on their minds, students can be helped to arrive at a useful and coherent overview of how the economic system operates. The lessons in this volume are designed to help students develop such an overview. An additional aim is to give them tools with which to make personal economic decisions as well as to begin forming their own judgments on wider economic issues.

The junior high school curriculum has both cognitive and affective goals. If students achieve greater understanding of economics as well as greater skills in thinking about and making decisions in economics, then the cognitive goals are met. If students recognize how their personal values affect their own economic decisions as well as their public policy choices on economic questions, then the affective goals are met.

The material in this publication is not a complete program in economic education for junior high school students. Rather, it shows how economics can be made a vital part of the curriculum and provides a starting point for teachers and school districts wishing to include economics in the junior high school curriculum.

## Scarcity: The Basic Economic Problem

The basic economic problem confronting us all—students, adults, entire societies—is scarcity. Scarcity exists because the supply of productive resources—natural resources, human resources, and capital goods—is not sufficient to produce all the goods and services wanted. Thus, scarcity requires the making of choices between alternative uses of the available resources. A choice to use resources for one particular end forecloses the use of those resources for other ends. *Opportunity cost* refers to what must be given up, that is, the next most attractive use of the resource, when decisions are made to use scarce resources for one purpose rather than another.

Students experience the problems arising from scarcity in a variety of ways. Lesson 1 uses the experiences and observations of students to introduce the concept of scarcity and to help students see why they must take opportunity costs into consideration when making choices. Lesson 2 extends their understanding of the problem of scarcity. It uses a tale concerning a teenager lost in the mountains of western Colorado who, in effect, is forced to create his own miniature economy. His endeavors serve to inform students about the different productive resources employed to produce goods and services. (Productive resources, scarcity, and opportunity cost are also emphasized in Lesson 4.)

## Division of Labor, Efficiency, and Interdependence

The term *division of labor* has two separate but related meanings. One refers to the process whereby workers perform only a single or very few steps of a major task, as on an assembly line. Division of labor also refers to specialization in an occupation that calls for an array of related skills (e.g., engineering, teaching, farming, nursing) gained through special training or experience. Both types of division of labor increase the supply of goods and services: the first mainly because jobs are simplified; the second mainly because people concentrate on complex work that they are especially well equipped to do. All division of labor increases interdependence among people because they must rely on others to furnish the goods and services they no longer produce themselves.

1. We recognize that the definition of what grades constitute junior high school is not uniform in the United States. It may include several different sets of grades ranging from the sixth through the ninth. Grades that are designated "junior high school" in some places may be designated "middle school" in others.

Lessons 2, 4, and 5 develop the ideas of division of labor and interdependence and make students aware that there is a loss (trade-off) of economic self-sufficiency as individuals, businesses, regions, or nations specialize. Lesson 3 provides instances of how the division of labor increases efficiency in school life. Lesson 4 presents the related concepts of scarcity, division of labor, and interdependence by use of the simulation Arctic Survival. The students find their survival depends on their society's ability to organize the tasks of production in a manner that makes the most efficient use of resources. As the division of labor increases, students come to realize that members of the society are becoming increasingly interdependent.

The division of labor in turn requires trade or exchange in order to supply those who perform specialized tasks with all the goods and services they need. When two individuals, businesses, regions, or countries freely choose to trade their goods and services, voluntary exchange occurs. The two parties are willing to trade because both believe they will be better off as a result. Because bartering is clumsy, money evolved in order to facilitate such exchanges. In Lesson 5, the game of Barter helps students understand the difficulties of bartering and the advantages of using money as a medium of exchange. In Lesson 6, students tour their school in order to find and observe concrete examples of, among other things, specialization, division of labor, and interdependence, as well as the relationships among them.

The market is a mechanism enabling individual sellers and buyers to put into effect their decisions to sell (supply) or buy (demand) goods and services as well as productive resources. The market adds up these decisions into "aggregate" supply and "aggregate" demand. The interaction of aggregate supply and demand determines the price of what is bought and sold.

In economics, the term supply relates to the amounts of a specific good or service that will be offered for sale at various prices at some particular time. Generally, the higher the price, the more will be produced and offered for sale—and vice versa. Demand relates to the amounts that will be bought at various prices at that same time. Generally, the lower the price, the more will be demanded—and vice versa.

A market price is that prevailing in the market at a given time. Prices constitute the principal allocating mechanism of the American economy. They act as signals, flashing information to households, producers, workers, savers, and investors that help them decide on market decisions that will benefit them most. Changes in prices affect the way consumers spend their money, where workers work, how savings are invested, and what producers produce.

A price system is a means of allocating goods and services among consumers and productive resources among producers. If, for example, fewer jeans of a particular quality are produced than people want to buy, prices will tend to rise. The price rise will have two sets of effects. Prospective buyers who are unwilling

or unable to pay the higher prices will not purchase such jeans. The higher prices that the producers get should subsequently lead producers to make more jeans, which will tend to restore lower prices. Thus, price changes reflect the relative scarcity or abundance of goods and services and help determine who gets them and who goes without.

Some knowledge of market structure is essential to understand how a market economy functions and how prices, costs, and output levels are determined. The term market structure refers to the degree of competition and price flexibility prevailing in a particular market. The degree of competition is largely determined by the number of buyers and sellers participating in a market. Some markets are highly competitive. They contain many producers or sellers, none of whom can affect the market price, and entry of firms into the industry or exit from it is relatively easy. Less competitive markets are dominated by a small number of producers or sellers. Their individual actions can affect and sometimes control prices, entry is usually difficult, and as a consequence substantial market power may rest in the hands of a few producers. Thus, the spectrum of market structures runs from the completely competitive to those containing only a single firm (a monopoly). The structure of markets is also affected by any applicable laws or government regulations.

In Lesson 7, the Wheat Market game demonstrates how a competitive market works. By acting as buyers and sellers of wheat, students begin to understand how the forces of supply and demand determine market prices.

## The Consumer Price Index and Price Change

While Lesson 8 is basically about the Consumer Price Index and how it is constructed, questions about price changes or about inflation are practically certain to arise. Here is some background on the nature of inflation for this lesson (and for Lesson 9).

Inflation is a sustained rise in the general price level (the average of the prices of all goods and services). Inflation therefore results in a loss in the purchasing power of money. Since World War II began, prices in the United States, as in almost all countries, have been rising practically continuously. But the rises were moderate until the mid-1960s—a mild inflation that was not of very great concern. Inflation speeded up thereafter, and by 1980 was about 10 percent in the United States—a rate that if it continues, will cause the price level to double in seven years.

What causes inflation? Many answers are offered; some are comparatively simple, some are rather complex. An example of a widely held comparatively simple answer is that provided by Milton Friedman, winner of the 1976 Nobel Prize in Economics.

There is one and only one basic cause of inflation: too high a rate of growth in the quantity of money—too much money chasing the available supply of goods and services. These days, that

cause is produced in Washington, proximately, by the Federal Reserve System, which determines what happens to the quantity of money; ultimately, by the political and other pressures impinging on the system, of which the most important are the pressures to create money in order to pay for exploding Federal spending and in order to promote the goal of "full employment." All other alleged causes of inflation—trade union intransigence, greedy business corporations, spendthrift consumers, bad crops, harsh winters, OPEC cartels and so on—are either consequences of inflation, or excuses by Washington, or sources of temporary blips of inflation.

There is one and only one basic cure for inflation: slowing monetary growth. But that cure is easier to state than to put into effect: witness our repeated abandonment of the cure. The Fed is supposedly independent . . . .

It matters little whether the Federal Reserve is unable or unwilling to exercise its independence in deeds as well as words. In either case, let us be done with the fiction that "independence" is somehow or other a bastion against inflation. Let us put the responsibility for the rate of monetary growth—and therewith for the subsequent rate of inflation—squarely and openly on the Administration and Congress. . . . [L]et the Congress require the Fed to achieve specified rates of monetary growth (or specified levels of the quantity of money) within specified ranges of tolerance. That would combine responsibility and power. It would also enable the ordinary citizen to know whom to hold accountable for inflation.<sup>2</sup>

A representative complex answer is that provided by Arthur F. Burns, a prominent academic economist who has been chairman of the Board of Governors of the Federal Reserve System and chairman of the Council of Economic Advisers (to the President).

... We well know—as do many others—that if the Federal Reserve stopped creating new money, or if this activity were slowed drastically, inflation would soon either come to an end or be substantially checked.

Unfortunately, knowing that truth is not so helpful as one might suppose. The catch is that nowadays there are tremendous nonmonetary pressures in our economy that are tending to drive costs and prices higher . . . . [P]owerful upward pressures on costs and prices have become worldwide, and they persist tenaciously through peacetime periods as well as wars.

This inflationary bias reflects a wide range of developments that have been evolving over a span of decades in both governmental and private affairs. Foremost among these developments is the commitment of modern governments to full employment, to rapid economic growth, to better housing, to improved health, and to other dimensions of welfare. These are certainly laudable objectives, but they have too often caused governmental spending to outrun revenues. Other developments—such as the escalator arrangements that various economic groups have achieved through their efforts to escape the rigors of inflation—have speeded the transmission of inflationary impulses across the economy. What we as a people, along with other nations, have been tending to do is subject available resources to increasingly intensive demands; but we at the same time have sought to insure that incomes do not get eroded when excessive pressures on resources generate inflation. This amounts, unfortunately, to creating upward pressures on costs and prices, and then arranging to perpetuate them. That is the awesome combination that fighters against inflation have to try to counter.

Theoretically, the Federal Reserve could thwart the nonmonetary pressures that are tending to drive costs and prices higher by providing substantially less monetary growth than would be needed to accommodate these pressures fully. In practice, such a course would be fraught with major difficulty and considerable risk . . . . If the Federal Reserve sought to create a monetary environment that seriously fell short of accommodating the nonmonetary pressures that have become characteristic of our times, severe stresses could be quickly produced in our economy. The inflation rate would probably fall in the process but so, too, would production, jobs, and profits.<sup>3</sup>

Lesson 9 explains how to use cartoons to teach about economics. The cartoons used to illustrate the method are all on the subject of inflation.

## Economic Growth

Economic growth, the subject of Lesson 10, is often defined as an increase in the total production (output) of an economy over an extended period. If economic growth is more rapid than growth in population, output per person will increase and thus the standard of living will improve.

Much of the nation's economic growth has resulted from increases in the size and quality of the employed labor force and in the amount and quality of the capital goods in use (machinery, equipment, buildings, vehicles and transportation facilities, dams, etc.). An in-

2. From "Why Inflation Persists," by Milton Friedman, *Newsweek*, October 3, 1977, p. 84; emphasis in original. © 1977 by Newsweek Inc. All rights reserved. Reprinted by permission.

3. "The Importance of an Independent Central Bank," *Federal Reserve Bulletin*, September 1977, p. 778.

crease in the *quality* of labor as well as increases in the *quantity* or *quality* of capital goods leads to higher productivity. Higher productivity means that labor and/or capital goods become more efficient or are used more efficiently, that is, given amounts (inputs) of labor and/or capital goods produce *greater* amounts (outputs) of goods and services.

Increases in the amount or quality of capital goods or in the quality of labor result from the process of **saving** and **investment**. Saving occurs when individuals, businesses, and the economy as a whole do not consume all of their current income. Investment in capital goods occurs when savings are used to improve the economy's productive capacity by installing new machines, building new factories, and the like. Investment in human beings occurs when savings are used to finance education and training. The saving and investment process, therefore, diverts productive resources from supplying goods and services for immediate consumption to the creation of capital goods and human skills that make economic growth possible.

### The Story of Shoes

After Lesson 10 comes a comprehensive unit based on a case study of the U.S. shoe industry. The unit consists of eight lessons that take about two weeks to present. However, teachers can adapt it or shorten it according to their own requirements. A more complete description precedes the unit, which begins on page 67.

### Supplementary Resources and Glossary

This volume concludes with two appendixes. One consists of lists of books, films, and other materials that teachers can use to supplement the lessons. The other is a glossary of economic terms compiled for the convenience of students. Teachers may wish to duplicate and distribute it at an appropriate time, particularly for use with "The Story of Shoes."

\* \* \*

All the lessons in this volume have the structure shown in the format below. However, as stated in the Foreword, teachers may adapt the content—and the duration—of the lessons to their own classes and requirements, use them as examples from which to construct lessons of their own, integrate them with other social science material, and so on. (The matrix on page 8 contains a cross-classification of the lessons and economic concepts.) Each lesson includes suggestions for evaluation that will enable teachers to gauge student accomplishment and students to reflect on what has been learned. Teachers will want to supplement these evaluations with other measurement instruments such as objective tests. One such nationally normed test is the *Junior High School Test of Economics (Grades 7-9)*, which may be obtained from its publisher, the Joint Council on Economic Education. The test contains forty questions and comes in sets of twenty-five reusable booklets. The interpretive manual includes a rationale for answers to each question, norming data, suggestions for use of the test, an answer sheet, and a scoring key.

# MASTER CURRICULUM GUIDE

## Lesson Evaluation Form

Please complete an evaluation form for each activity used and return to: \_\_\_\_\_  
(Name of Supervisor)

NAME: \_\_\_\_\_ SCHOOL ADDRESS: \_\_\_\_\_

(Person Completing Form)

DATE: \_\_\_\_\_

TITLE AND/OR LEVEL OF ACTIVITY PACKAGE: \_\_\_\_\_

NUMBER AND/OR TITLE OF ACTIVITY: \_\_\_\_\_

DESCRIPTION OF CLASS WITH WHICH ACTIVITY WAS USED:

Course Title: \_\_\_\_\_

Age Range or Grade Level: \_\_\_\_\_

Title of Textbook (if any): \_\_\_\_\_

Student Ability Level(s)—(Check one):

Above Average

Average

Below Average

Heterogeneous Group Including All the Above

ACTIVITY EFFECTIVENESS (circle the number you think indicates the appropriate rating):

1. Are objectives clearly stated?

Very Clear 5 4 3 2 1 Vague

2. Are objectives realistic in terms of student maturity at the specified age or grade level?

Very  
Realistic 5 4 3 2 1 Unrealistic

3. Are teaching procedures stated in a manner so as to be easily understood?

Easy to  
Understand 5 4 3 2 1 Very Difficult  
to Understand

4. Are teaching procedures appropriate for accomplishing objectives?

Very  
Appropriate 5 4 3 2 1 Not  
Appropriate

5. Are teaching procedures appropriate for students of this age or grade level?

Very  
Appropriate 5 4 3 2 1 Not  
Appropriate

6. Are recommended student materials appropriate for the age or grade level specified?

Very  
Appropriate 5 4 3 2 1 Not  
Appropriate

7. To what extent does this activity contribute to pupils' understanding of the particular economic concept it is designed to teach?

Very Much	5	4	3	2	1	Not At All
--------------	---	---	---	---	---	---------------

8. Did you use any of the items suggested for evaluation? \_\_\_\_\_  
If yes, please provide the information requested below.

Number of Evaluation Item	Average Level of Class Performance (Circle one)			
_____	Excellent	Good	Acceptable	Poor
_____	Excellent	Good	Acceptable	Poor
_____	Excellent	Good	Acceptable	Poor
_____	Excellent	Good	Acceptable	Poor
_____	Excellent	Good	Acceptable	Poor

9. What would be your overall rating of evaluation techniques suggested for this activity?

Excellent	5	4	3	2	1	Poor
-----------	---	---	---	---	---	------

10. What would be your overall rating of the activity in terms of its effectiveness for achieving stated objectives?

Very Effective	5	4	3	2	1	Not At All Effective
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**COMMENTS AND RECOMMENDATIONS:** What changes and/or additions would you recommend for making this a more effective instructional activity? Please describe or, if available, include some samples of any additional teacher or student materials you used (for example: evaluation techniques). We welcome specific elaboration concerning any of the above questions.

(Attach extra sheets with comments and materials or use back of form)

Prepared by June V. Gilliard,  
Director of Curriculum, JCCE

## MASTER CURRICULUM GUIDE

### Lesson Format for Junior High Strategies

<b>TITLE:</b>	Name of lesson.
<b>TIME REQUIRED:</b>	Time or number of class periods needed to complete the activity.
<b>MAJOR CONCEPTS:</b>	Concepts around which the activity is mainly organized.
<b>RELATED CONCEPTS:</b>	Other economic concepts dealt with in the activity.
<b>INSTRUCTIONAL OBJECTIVES:</b>	For each objective we specify (1) the particular knowledge, skill, or attitude the student is expected to demonstrate; (2) the action the student will perform in demonstrating this knowledge, skill, or attitude (e.g., write, compare, state, list, etc.); (3) the conditions under which the action is to occur (e.g., given certain data or information, after viewing a particular film, participating in a particular field trip, etc.).
<b>RATIONALE:</b>	A brief statement explaining the significance of the activity. The statement may focus on what students should know, be aware of, or be able to do. Or, it may focus on the importance of the instructional approach being taken (e.g., use of gaming/simulation for motivational purposes or to have students apply certain skills, knowledge, etc.).
<b>SUGGESTED USE:</b>	Courses and subjects to which the activity relates.
<b>MATERIALS:</b>	A list of all materials needed for the activity (e.g., books, games, films, etc.).
<b>PROCEDURE:</b>	A description of the teaching-learning process to be used for pupil attainment of objectives. Includes both teacher strategies and pupil activities.
<b>EVALUATION:</b>	A description of strategies, testing instruments, or other materials to be used for assessing student learning.

**Matrix of Lessons and Concepts**  
(M = major concept; R = related concept)

	Lessons										The Story of Shoes*						
	1	2	3	4	5	6	7	8	9	10	S1	S2	S3	S4	S5	S6	S7
<b>BASIC ECONOMIC PROBLEM</b>																	
Economic Wants	M											M					
Productive Resources	R	M	R	M		M					R	M	M	M	M		
Scarcity & Choices	M	R		M	M												
Opportunity Costs and Trade-offs	M				M												
<b>ECONOMIC SYSTEMS</b>																	
Economic Incentives																M	
Specialization, Comparative Advantage, Division of Labor		M	M	M											M	M	
Voluntary Exchange				M	R						M						
Interdependence		M	M														
Government Intervention and Regulation															M	M	
<b>MARKETS, PRICE, AND COMPETITION</b>																	
Markets, Supply and Demand					R	M						M					
Price Mechanism							M										
Competition and Market Structure						R					M	M	M				
<b>ECONOMIC STABILITY AND GROWTH</b>																	
Economic Growth											M						
Savings, Investment, and Productivity			R								M		M	M	M		
Price Level Changes							M	M									
Money and Monetary Policy				M													
<b>MEASUREMENT CONCEPTS</b>																	
Averages							R										
Ratios							R	R									
Index Numbers							M	R									
Tables							R	R	R								
Charts (graphs)							R	R	R	R						M	

\*Lesson S8 is a review of all the concepts presented in the preceding seven lessons that constitute The Story of Shoes

# Lesson 1: Scarcity

**TIME REQUIRED:** One class period and part of another about one week later

**MAJOR CONCEPTS:** Economic wants  
Scarcity  
Opportunity cost

**RELATED CONCEPT:** Productive resources

**Instructional Objectives:** Students will

- Define scarcity as an excess of wants over what can be supplied from limited resources;
- Name the scarce or limited resource in a given situation;
- Define opportunity cost and recognize a specific instance of it;
- Give examples of scarcity in their own lives, as well as in the community and nation.

**Rationale:** Students should be aware of the problem of scarcity and the need to make wise decisions in order to cope with it.\*

**Suggested Use:** Scarcity is germane to many subjects, e.g., to history (the desire for more resources prompted wars and voyages of exploration); to geography (the location of resources); to civics (social decisions about the allocation of resources); to business (economic decisions about the allocation of resources); to home economics (household decisions about the use of resources).

**Materials:** Classroom set of copies of handouts 1-1, 1-2, and the Scarcity Diary (Handout 1-3).

**Procedure:**

1. Start a discussion in which you ask students questions such as:
  - a. What things would you like to buy that—unless forbidden by law, parents, school, etc.—you are unable to purchase?
  - b. Why can't you buy everything?Lead students to understand that they are describing a problem of scarcity as faced by individuals. The scarce item, of course, is income—money that they have earned through work or received as allowances.
2. Hold up a few copies of Handout 1-1, and tell students you do not have enough to give one to each student, but would like them all to have the information printed on the sheet of paper. Ask them for solutions to the problem of giving them the handout information as quickly as possible. Encourage them to think of as many solutions as they can (two students reading together, one student reading and then passing the paper to another student, reading paper out loud to the entire class,

duplicating more copies, etc.). When students have run out of ideas, discuss with them the option of duplicating more copies. Explain that although this is one way to relieve the lack of sufficient handouts, they are nevertheless still "scarce" from the viewpoint of economics. Students should understand that handouts are not "free goods" in an economic sense. Making handouts uses up paper and other supplies for the duplicating machine. These are scarce resources because the school budget limits the amounts that can be purchased. Making additional copies of the handouts would require the use of supplies that could otherwise be used, for example, to duplicate materials needed in other classes, advertisements for a school play, or some other school activity in which students are interested. Tell students that decisions about the use of limited resources for classrooms mirror the decisions a society makes as it tries to produce as much as possible from limited economic resources. You will be able to reinforce this point when you give each student a copy of the handout in step 3. The handouts will no longer be in short supply—there may even be a surplus—but duplicating the handouts has committed scarce resources to one particular use at the expense of alternative uses.

3. Pass out a copy of Handout 1-1 to each student. Have class read it and then answer the questions at the end of the reading. (The answers to a and b are in the reading; the answer to c depends on the students.)
  - a. What does the word "scarcity" mean for individuals? for society? (Insufficient money or income; insufficient productive resources.)
  - b. What do the words "opportunity cost" mean? (What is given up when a decision is made to use scarce resources in a particular way.)
  - c. What situations involving scarcity and opportunity cost have you faced in the last week? (Answers will vary, but every student has probably had to make decisions relating to time or income.)

Write responses to the last question on the chalkboard so that students can see the variety of ways scarcity affects their lives.

4. Give a copy of Handout 1-2 to each student. Discuss with students the three questions on the handout.
  - a. What resource is scarce?  
Situation 1. Money (or income).  
Situation 2. Fire engines.  
Situation 3. Labor.
  - b. What decisions must be made in using the resource?

c. Situation 1. Which item to buy.  
 Situation 2. Which fire is more important.  
 Situation 3. Which line to help (Students may propose shifting people between the lines, but some people would still suffer the inconvenience mentioned below.)

c. What is the opportunity cost involved?

Situation 1. The thing(s) not purchased.  
 Situation 2. Not being able to extinguish one of the fires.  
 Situation 3. Inconveniencing—delaying—people on one of the two lines.

5. Give a copy of Handout 1-3 to each student. Give students about one week to complete the assign-

ment. (NOTE: Allow time in class after distributing the handout for students to read the instructions and ask questions.)

6. Discuss with students what they have written in their scarcity diaries. List examples on the board. Ask students what the consequences of some of these scarcities are. Ask students to suggest realistic ways by which the problems created by these scarcities could be ameliorated.

**Evaluation:**

1. Assess the quality of written responses to the questions on handouts 1-2 and 1-3 and contributions to the discussion.

**SAMPLE OF COMPLETED SCARCITY DIARY.**

Source of Example	Scarcity or Scarce Resource
1. Newspaper	1. Too few physicians and engineers to meet all needs for their services.
2. TV News	2. Food in Somalia -- people starving.
3. Magazine	3. Transmission capacity of communications satellites
4. TV Show	4. Income -- more people are taking a second job to meet expenses.
5. Newspaper	5. Most species of whales appear in dangerously small herds.
6. TV News	6. Electricity -- too many people are using their air conditioners alone.
7. Radio News	7. Water -- not enough rain for farms.
8. Newspaper	8. People aren't donating enough blood to the Blood Bank.
9. Newspaper	9. Space -- Police Department building is too small.
10. Magazine	10. Clean air -- air in some cities is increasingly polluted.

## Handout 1-1

## SCARCITY

Name \_\_\_\_\_ Class \_\_\_\_\_

**Class** \_\_\_\_\_

Have you ever wanted to buy a record album and a ticket to a rock concert but had money for only one of them? Then you've experienced the problem of **scarcity**. For individuals, scarcity is quite often the consequence of a desire to buy more things than they have the money for. For the country as a whole, scarcity is the consequence of a desire for more goods (for example, stereo sets) or more services (for example, nursing care) than can be produced from the available productive resources.

Scarcity forces people to make decisions. You cannot buy a record and a concert ticket unless you have enough money for both. The scarcity of money forces you to make a decision to buy one or the other. When you do so you decide to acquire one and give up the other. What you give up when you make such a decision is called your **opportunity cost**. An opportunity cost is whatever is given up when a decision is made to use resources—in this case money or income—for one purpose rather than another. What is given up is the next most desirable use of the resources. If you are deciding between buying a pair of blue jeans or a shirt and decide to buy the shirt, the opportunity cost is the pair of blue jeans. If businesses decide to use steel to make bicycles instead of automobiles, the opportunity cost is fewer (or no) automobiles. Every decision about the use of a scarce resource has an opportunity cost associated with it.

## Questions:

- a. - What does the word "scarcity" mean for individuals? for society?
- b. What do the words "opportunity cost" mean?
- c. What situations involving scarcity and opportunity cost have you faced in the last week?

**Answers / Notes:**

# Handout 1-2

## SCARCITY SITUATIONS

Name \_\_\_\_\_

Class \_\_\_\_\_

Answer these questions for each situation described below:

a. What resource is scarce? \_\_\_\_\_

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b. What decisions must be made in using the resource? \_\_\_\_\_

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c. What is the opportunity cost involved? \_\_\_\_\_

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### SITUATION 1

You have saved \$60. You would like to buy a pair of roller skates with specially attached boots, but you also need a new jacket and sweater. The \$60 will only be enough to buy either the skates or the jacket and sweater.

### SITUATION 2

You are the fire chief in a town with a population of 20,000. There are only enough fire engines to fight one major fire. Unluckily, two major fires break out at once. The fire department of the nearby town that usually helps you out is engaged in fighting a fire there.

### SITUATION 3

You are the manager of a supermarket. Lots of customers are waiting to be checked through two different lines, but you have only one packer available.

From *Miller Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-8)*, 1961. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Handout 1-3

### SCARCITY DIARY

Name \_\_\_\_\_

Class \_\_\_\_\_

**DIRECTIONS:** Instances of scarcity constantly come to people's attention—at home, around school, in the newspapers, on the television (both news programs and other shows). In the space below, list ten examples of scarcity. Tell where you found the example, and then describe the situation briefly.

Source of Example	Scarcity or Scarce Resource

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Lesson 2: Productive Resources

**TIME REQUIRED:** One class period

**MAJOR CONCEPT:** Productive resources

**RELATED CONCEPTS:** Scarcity and choices

**Instructional Objectives:** Students will

- Define productive resources;
- Give examples of natural, human, and capital resources.

**Rationale:** Students must understand that the production of all goods and services requires the use of productive resources. (Economists often use the terms land and labor for what are called natural and human resources in this lesson.)

**Suggested Use:** Most suitable for such courses as world studies, U.S. history, geography.

**Materials:** Classroom set of copies of handouts 2-1 and 2-2.

**Procedure:**

1. Give a copy of Handout 2-1 to each student. Allow time for the students to read the handout and write in examples on the lines provided. Discuss the three types of productive resources and the students' examples of each. Be flexible in accepting student examples, but be sure they are correct.
2. Give a copy of Handout 2-2, "Green River Blues," to each student. Allow time for the students to read the handout.
3. Once students have completed the reading, ask:
  - a. What are capital resources? (Items such as tools, machines, and buildings whose purpose is to produce goods and services.)
  - b. What items did Keith use as tools, i.e., as capital resources? (Safety pin, rubber band, string, bottom of soft drink bottle, knife.)

c. What goods or services did he produce or obtain with these capital resources? (Fish, fire for cooking, shelter.)

d. What natural resources did Keith use? (Fish, bark, sun's rays, willow trees, grass, water.)

4. List the following items on the chalkboard and have students state whether they are natural (land) or capital resources. (Omit the correct categories, which are given in the parentheses.)

sun (natural)	water (natural)
soft drink bottle (capital)	willow poles (natural)
firewood (natural)	rock (natural)
knife (capital)	leaves (natural)
bark (natural)	

Discuss the answers. Should there be disagreements, try to reconcile them.

5. Ask the students to distinguish between capital resources and natural resources. (Capital resources are used to convert natural resources into useful products.)
6. Ask the class to name the scarcities facing Keith and describe how he tries to relieve them.
  - a. Means of lighting a fire. (Had no matches or lighter. Used the soft drink bottle.)
  - b. Shelter. (Built a lean-to.)
  - c. Means of protection against insects. (Used smoke from the fire.)
  - d. Food. (Had small supply with him. Improvised means to catch fish.)
  - e. Cooking utensils. (Had none. Finally thought of wrapping fish in wet leaves.)
  - f. Tools. (Had only very small and simple ones. Would have been easier for Keith if he had had larger or more complex tools such as a fishing rod, an ax, a pail.)

**Evaluation:**

1. Assess student responses to Handout 2-1.
2. Assess quality of student responses and discussion elicited in procedure 3.

# Handout 2-1

## PRODUCTIVE RESOURCES

Name \_\_\_\_\_

Class \_\_\_\_\_

All the goods and services that are available in our economy to satisfy human wants are composed of *productive resources* (or factors of production)

- (1) natural (which includes land and energy-producing resources);
- (2) human (labor resources in the form of effort, skill, and knowledge);
- (3) capital (resources such as machines, buildings, transportation equipment).

For example, in order to produce an item of cotton clothing, the *raw material* cotton must be picked and then transformed into garments by weaving, dyeing, cutting, and sewing. The picking and transformation are done using *labor* and *machinery*. All three productive resources are needed.

List below two specific examples of each type of productive resource.

### HUMAN RESOURCES (can be the name of a job):

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_

### NATURAL RESOURCES:

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_

### CAPITAL RESOURCES:

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_

## Handout 2-2

### GREEN RIVER BLUES

Keith wondered how on earth he could have gotten into such a fix. Here he was miles from civilization with faint chances of making contact with human beings for days or perhaps weeks. He sat down on the damp sand and gazed unhappily at the steep canyon walls. What had started as a canoe trip through the rapids of Green River in western Colorado now took on the appearance of personal tragedy—for Keith at least.

As the canoes hit the last stretch of turbulent water, Keith managed to guide his craft through the first few yards when suddenly he rammed a partly submerged log which was running the rapids too. The canoe spun to the left and to the right in a crazy pattern and in a second the pleasant canoe trip turned into a wild and wet struggle for survival among the swirling waters of Green River.

When Keith's eyes became accustomed to the sand-laden water, he saw his canoe being tossed like a paper cup on the rocks on the west side of the river. The rest of the canoe party members were rushing through the half-mile stretch of rapidly moving water. Even if they knew of his plight, they could do little to aid him. The next landing place where the group planned to meet was many miles downstream. This was no time to change plans. The foaming waters pushed him against his will and lodged him between two massive rocks almost opposite the wrecked canoe.

Breathing short, hurried gasps of air, he held onto the smooth cold rock. It was impossible to get to the canoe, but beneath the east wall of the canyon at this point there was a beach—a strip of land at least. Keith hesitated and then acted. His only hope was to make it to the east bank. The cold water began to numb his arms and legs, but with a last spurt of energy he struggled across the narrow channel of swift flowing water and struggled onto the sandy shore.

He was not alone. Lizards scattered in all directions as he made his way to a higher level, and flies buzzed around his head. He saw in an instant that he couldn't go anywhere. Beyond the few jasmine bushes and willows the canyon walls rose steeply to the cloudless sky. His hands clutched at the damp sand, and he threw it angrily at the churning water. He began to think. If only he had followed instruc-

tions about ... oh well, what good was there in worrying about what he had or hadn't done. At least he was alive, and he could do something to stay that way. He began to survey the situation and laid out on the sand his total possessions: one knife, some string, a small first aid kit strapped to his belt and 28 cents in cash. Oh for a hamburger, he thought, but quickly realized that hamburger stands are not too common on the isolated beaches of Green River. The 28 cents were worthless for the present.

A movement in the small pool of water to his left drew Keith's attention. In one of the many side pools formed by water escaping from the main current of the Green, he saw the fleeting form of fish. His hunter's instinct came into play, and he fashioned a hook from one of the safety pins in the first aid kit. Baiting it with a crude worm made from a piece of bandaid, he lowered the hook into the pool on the end of the string. Eventually he landed a fish.

At least he wouldn't starve, he thought, and then he said slowly to himself, "Raw fish!" The idea was revolting, and he started thinking of an alternative. He needed fire, but how could he get fire? The afternoon sun had just begun to hit his side of the canyon, and he had noticed a soft drink bottle near the water's edge. He smashed the bottle against a rock and, using the thick bottom, began to focus the sun's rays on the dry bark of a dead willow. It was a tedious process, but after 20 or 30 minutes smoke, then flame, began to emerge from the bunch of tinder-dry bark. Later he felt much like a caveman as he crouched over the small fire and licked the last morsel of fish from his fingers.

The sky was beginning to cloud over and his thoughts turned to shelter and sleep for that night. A cooling breeze began to move through the canyon. It occurred to him that he was really a caveman without a cave. Selecting the largest of the rocks scattered on the higher level, he decided to use it as one side of a lean-to shelter. With his knife he cut into the willow stand, and after much bending and pulling and hacking, he managed to produce poles which he used as rafters for his lean-to. He covered them with a mixture of dry bark and grass and decided to hope for the best if it rained.

He kept the fire burning in spite of the smoke the green wood was producing. "Better to have the

SOURCE: Mono Lovenstein et al., *Economics: Teacher's Guide* (Columbus, Ohio: State University Social Studies Curriculum Center, 1968), pp. 22-23.

smoke," he sputtered, "than to be eaten alive by gnats." Besides, it could lead to his rescue if anyone took the trouble to look for him. He became depressed at that thought and began to wonder if he was worth looking for. "Anyone as stupid as I am deserves to be lost," he muttered under his breath. Thoughts of how he could be rescued crowded into his mind until finally he gave up and crawled into his home and went to sleep.

A small bird, seeking its first food of the day, awoke him next morning with its short, sharp cries. He stirred himself with difficulty from his hard bed of sand and grass. Sand seemed to be everywhere—in his eyes, nose, ears, and throat. His neck was raw with the pressure of damp sand on the life jacket he had used as a pillow. Staggering to the water's edge, he tried to wash the sleep from his eyes and in the process added more sand. "Sand and water everywhere and not a bite to eat," he thought as he tried to locate the canoe.

It was still held securely in the grip of the rocks. In the canoe were the things he needed so that he could exist for a few days at least: canned fruit, beans, flour, a saw, flashlight, matches, and ... he stopped short. He was wasting his time again. The canoe was as worthless to him as his 28 cents. He couldn't make use of things he couldn't get to.

He thought back on the stories he had heard about Robinson Crusoe and the Swiss Family Robinson. They had managed to survive all right, but they had the fortune to land on South Sea Islands with plenty of fruit and animal life. He didn't exactly relish the idea of roasted lizard, but if ... well, he decided to wait and see if the day would bring his rescuers.

In the meantime, he set about making himself more comfortable. A few old wooden crates had

been washed ashore, and he took them apart using a small rock. He straightened out the nails and used the wood and nails to reinforce the roof of his lean-to.

The fish in the pool were still biting. This time he cooked the fish by wrapping them in layers of wet leaves (and the ever-present sand!). He wondered how many different ways he could cook fish—dry it, roast it, boil it—no, he didn't have a pot. He could always preserve it by drying it on a board, but that would only be done if he wasn't rescued shortly. Rescued—he rolled the word on his tongue as if it were dessert. How much he'd appreciate all the things he had grown accustomed to at home.

Just then he looked up to see in the distance a group of river runners approaching the rapids. Their rubber rafts fairly bounced from wave to wave. Keith rushed to the river's edge and waved his hands wildly. As they approached they spotted his canoe and then turned to see him jumping frantically on the shore. The runner in the first raft maneuvered the raft into the channel, and Keith almost threw himself bodily on it.

As he recounted the happenings of the last two days to the river runners, Keith was almost too excited to talk clearly. One word kept coming up in his conversation. A weather-beaten man in a Colorado State Game Warden uniform looked at Keith and asked, "Did you say fish?"

"Yes," said Keith, "I caught them in a side pool."

"I suppose you have a license for fishing," the warden asked, with a twinkle in his eye.

Keith felt in his back pocket and pulled out a soggy piece of paper—his fishing permit. Yep—his fishing had been legal, fully authorized by the State Game Commission.

## Lesson 3: Who Does What?

**TIME REQUIRED:** One class period

**MAJOR CONCEPTS:** Division of labor  
Interdependence  
Efficiency

**RELATED CONCEPT:** Human resources

**Instructional Objectives:** Students will

- Define division of labor, interdependence, and efficiency;
- Give examples of division of labor, interdependence, and efficiency;
- Explain why division of labor and interdependence are widespread;
- Describe how the division of labor tends to make people more interdependent.

**Rationale:** Division of labor is present in every society and helps explain why people are interdependent.

**Suggested Use:** The concepts in this lesson apply to many courses and academic disciplines.

**Materials:** One copy of Handout 3-1 for each student or group.

**Procedure:**

1. Have students name the jobs of their families, other relatives, neighbors, or of people in general—for instance, people they have recently read about in newspapers, magazines, or books, or seen on TV. List these on the board. Lead students to that realization that, as a group, they have given examples of the broad division of labor in society.
2. Now explain to students, with help of lists on board, that the division of labor allows people to perform the tasks at which they are most proficient and also simplifies production processes (see Overview, p. 1). The division of labor thereby increases the total amount of goods and services available to the economy. Contrast the effects of the division of labor with a situation in which people would try to produce by themselves all the goods and services they need.
3. Ask the students to apply the concept of division of labor to the school staff. What are some of the different jobs that people do at school? (Lunchroom worker, lunchroom manager, principal, assistant principal, counselor, custodian, teacher, clerk, etc. And teachers specialize in certain subjects or grade levels.) How does this specialization benefit the student? (A student knows whom to go to about a particular situation or problem. The whole school operates more efficiently. In fact, the school could not operate at all without the division of labor. Something more like a one-room school would result without such division, etc.)
4. Divide class into groups of three to five students each. Distribute copies of Handout 3-1. Allow time for groups to prepare answers to the questions in the handout. Then have the entire class discuss each group's answers. Pay particular attention to the implications of question c.
  - a. What were the steps necessary to change natural resources into a finished chair in your classroom? (Raw materials were secured and manufactured into the components used to assemble the chair. The chair was then assembled, painted or finished, sold, and shipped. Many companies and people were involved. Some contributed the raw materials, such as wood, petroleum to make plastics, metal for certain parts; others processed and shipped the materials; someone designed the chair; possibly several companies were involved in manufacturing the chairs; one company probably assembled it; others warehoused, sold, and transported it.)
  - b. What kinds of human resources were needed to produce the chair and deliver it to your classroom? (Skilled and unskilled workers in the various companies: truckers; supervisors; designers; managers—the list can be very long.)
  - c. How does the production of the chair illustrate the division of labor? (One person did not perform all steps necessary to make and deliver the chair. Many people were involved, each doing just one portion of the total task of setting, designing, producing, and delivering the chair. Thus, the whole process was carried out efficiently.)
  - d. How has the division of labor in chair-making made people more interdependent? (All the individuals engaged in providing the chair to the school must depend on the work of others in order to get the complete job done.)
5. If applicable, have students write an essay describing how division of labor is illustrated in the course in which this lesson is being used. (Answers will vary depending on course.) After students have completed the assignment, use their answers to hold a general class discussion.

**Evaluation:**

1. Assess the quality of student contributions to class discussion.
2. Evaluate the quality of student responses to Handout 3-1.
3. Evaluate the quality of student responses to the discussion under procedure 5.

## Handout 3-1

## RESOURCES AND PRODUCTS

Name \_\_\_\_\_

## Class

**DIRECTIONS:** Carefully examine one of the student chairs in your classroom. Think about how it was made. Then answer the following questions:

- a. What were the steps necessary to change natural resources into a finished chair in your classroom?
- b. What kinds of human resources were needed to produce the chair and deliver it to your classroom?  
↓
- c. How does the production of the chair illustrate the division of labor?
- d. How has the division of labor in chair-making made people more interdependent?  
.

**Answers / Notes:**

## Lesson 4: Arctic Survival

**TIME REQUIRED:** Three class periods

**MAJOR CONCEPTS:** Scarcity  
Productive resources  
Division of labor  
Interdependence

**RELATED CONCEPTS:** Efficiency  
Productivity

**Instructional Objectives:** Students will

- Explain how productive resources are used to make goods that satisfy human wants;
- Describe how efficiency results from specializing in production and the division of labor.

**Rationale:** Students who are introduced to the ideas of economics without much previous contact with the subject are confronted with new concepts and modes of analysis that they may find difficult to understand at first. The simulation presented here helps them to grasp unfamiliar material more quickly and also arouses their interest and motivation to learn.

**Suggested Use:** In U.S. history and world history courses to illuminate problems faced by early settlers of new regions; in other courses when the division of labor or interdependence are taken up.

**Materials:** Copies of handouts 4-1 and 4-2. Show and post one model (see illustrations) of poncho, fish, and igloo you have previously prepared. Have on hand plenty of white paper, yellow paper, green paper, and easily cut cloth. For a class of 24 students also have available five compasses, six rulers, seven pencils, one washer or bottle cap or any other small, round, relatively flat object, three scissors, three felt markers, and two staplers.

### Procedure for Round 1 (Day One):

1. The purpose of the first day's activity is to have the students experience the difficulty of producing a large quantity of goods with limited resources in a limited time. Most or all the students will be unable to do so and will therefore end Round 1 with feelings of frustration.
2. Establish the mood for the activity by telling the class that they are lost on an Arctic island with little hope of rescue, and that the goal is that *every student* be able to survive. Pass out Handout 4-1.
3. Have students read the handout. Then go over it with them.
4. Ask:
  - a. What basic needs must you satisfy in order to survive? (Food, clothing, and shelter.)

- b. What need does the fish model represent? (Food.)
- c. What need does the igloo model represent? (Shelter.)
- d. What need does the poncho model represent? (Clothing.)

5. Explain to the class that in order for all to survive, they must produce one of each type of basic need for each class member within 15 minutes (you may wish to allow 20 minutes), i.e., for a class of 24, they must produce 24 fish, 24 igloos, and 24 ponchos. Failure to produce this amount of each item will mean certain death for as many students as there is a shortage of any item.
6. Make sure the tools are distributed around the room and marked in some way so that students cannot readily introduce extra tools. Tell students not to break pencils in two in order to increase the supply and that you will confiscate any that are so broken.
7. Tell the students to begin. At this point, the role of the teacher is that of a police officer charged with enforcing the rules. Be sympathetic and encourage those students who are slow starters or who try to give up. If students have questions, answer them one at a time and don't hurry, so as to make questions expensive in terms of lost production time. This helps them to feel the desperateness of their situation.
8. If the whole activity breaks down because of the students' frustration or awareness of having no hope of completing the task, stop immediately.
9. At the end of Round 1 collect all the materials and equipment and make sure everything is accounted for. Destroy any partially completed reproductions.

### Procedure for Round 2 (Day Two):

1. The purpose of the second part of this activity is for the class to develop group cooperation and the idea of division of labor.
2. Begin with a review of the efforts made during Round 1 and congratulate any students who managed to survive, i.e., complete all three reproductions (perhaps none did).
3. Tell the students that today they get a second chance to do better under the same conditions. They will be given the same amount of time and the same equipment and resources. They will, however, first have a maximum of 15 minutes to discuss the problem as a class to see if they can work out better solutions. At this point, the teacher should retreat from a position of domi-

Adapted from the game of Survival, devised by William E. Jennings, Sydenham High School, Sydenham, Ontario, as published by the Canadian Foundation for Economic Education. Presented here by courtesy of the author.

nance and make it clear that the students will have to work out their own solutions.

4. There is usually a minute or two of awkward silence but eventually every class responds. Note how decisions begin to be made. This is one of the most interesting periods in the simulation, for the group must determine whether decisions are going to be made on a democratic basis or whether it will follow the lead of a strong group or individual who makes decisions and gives orders. Every class seems to eventually organize itself into three groups—each producing one item.
5. Further specialization develops if the group are organized so that each individual does just one step in the production process. Toward the end of the 15-minute planning period things become frantic as each group decides what resources it is going to need to complete its task and starts to negotiate with other groups for these items. If a group is well organized, everyone will have an important role to play and the resources to accomplish it. This is why it is important that there be a sufficient but not an abundant supply of resources and tools from the beginning. Some students can be efficiently employed as transporters of the finished goods to the teacher for approval and credit.
6. After 15 minutes, let them have the materials and begin a 20-minute production period.
7. Everyone is usually much busier and happier during this round. The teacher's main task is to keep a running total of approved units which have been produced. These units begin to flood in after the first 10 minutes of the round and things become wild as the end of the production period approaches. When the 20 minutes are up, collect the materials and equipment and tally the scores.

#### Procedure for Review (Day Three):

During the previous two days, students have not learned much about economics—at least they won't realize they have. Yet they may have had some fun and have become interested. Some very good teaching must now take place. Question the students to help them relate the simulation to economics. Here are some of the questions that might be asked and some of the points which can be developed from them.

1. What problems did you or your group face during Round 1 of the simulation?

Students will point out that there was a lack of paper, tools, and time, thereby preventing them from producing enough to satisfy their basic needs for survival. Use their observations to introduce the problem caused by the abundance of human needs or wants compared to the limited means society has available to satisfy them—in other words, scarcity, a concept central to the study of economics.

2. Specifically, what did you need if you were to survive?

Students will say that they needed paper, pencils, and rulers, etc.—economic resources. Go on to name the three categories of resources or factors of production—natural, human, and capital. Interestingly enough, students often overlook human resources (their own labor) as a factor of production necessary for survival in the game.

The materials and equipment used in the simulation should be related to the categories of natural resources (the paper and cloth—which are, at bottom, products of the land) and capital (rulers, compasses, pencils, etc.). Students no doubt found that some systematic organization of production was also necessary, a discovery that helps reveal why societies develop economic systems.

At this point, students should be able to give a definition of economics somewhat along these lines: "Economics is the study of how people use their scarce resources—natural, human, and capital—to satisfy their wants."

3. What basic problem did you try to solve during the planning period prior to Round 2?

Students should easily comprehend that they were trying to determine how they could most efficiently produce the food, clothing, and shelter they needed to survive. This leads to a discussion of the three basic economic questions any economic system must solve:

- a. *What* to produce—in this case determined arbitrarily by the simulation which forced the production of fish, ponchos, and igloos regardless of whether students may, for example, have preferred meat, raincoats, and tents.
- b. *How* to produce goods—determined during the 15-minute planning session.
- c. The third economic question—for *whom* goods are to be produced—is one that students never deal with during the planning period. It never seems to occur to them and even if it did the shortness of the planning period would probably prevent them from arriving at a conclusion. Bringing up the issue leads to interesting discussions. Assume that in Round 2 our hypothetical class of 24 was able to produce the following units.

Food	Clothing	Shelter
34	16	24

How many students survive? Eventually they will see that since every survivor needed at least 1 unit of each, only 16 out of the 24 students will survive. Then comes the crunch—which 16?

In this way you can raise—in the acutest possible form—the question of how the goods produced should be distributed, which is one of the most important (and sometimes most perplexing) questions in economics. A moment's thought will reveal that by asking who shall survive one is asking a harder question yet: Who shall die? Students propose various alternatives. Some of them are:

By drawing lots;  
By survival of the strongest or fittest;  
By killing the weakest;  
By killing the clothing-makers (who failed to meet the class's needs).

4. Explain how you organized yourselves in Round 2 in such a way as to greatly increase production.

From the students' responses to this question you can develop some of the basic characteristics of economic organization in modern economies: division of labor, interdependence, and trade.

5. How did you decide what groups to form and what task each individual in the group would do?

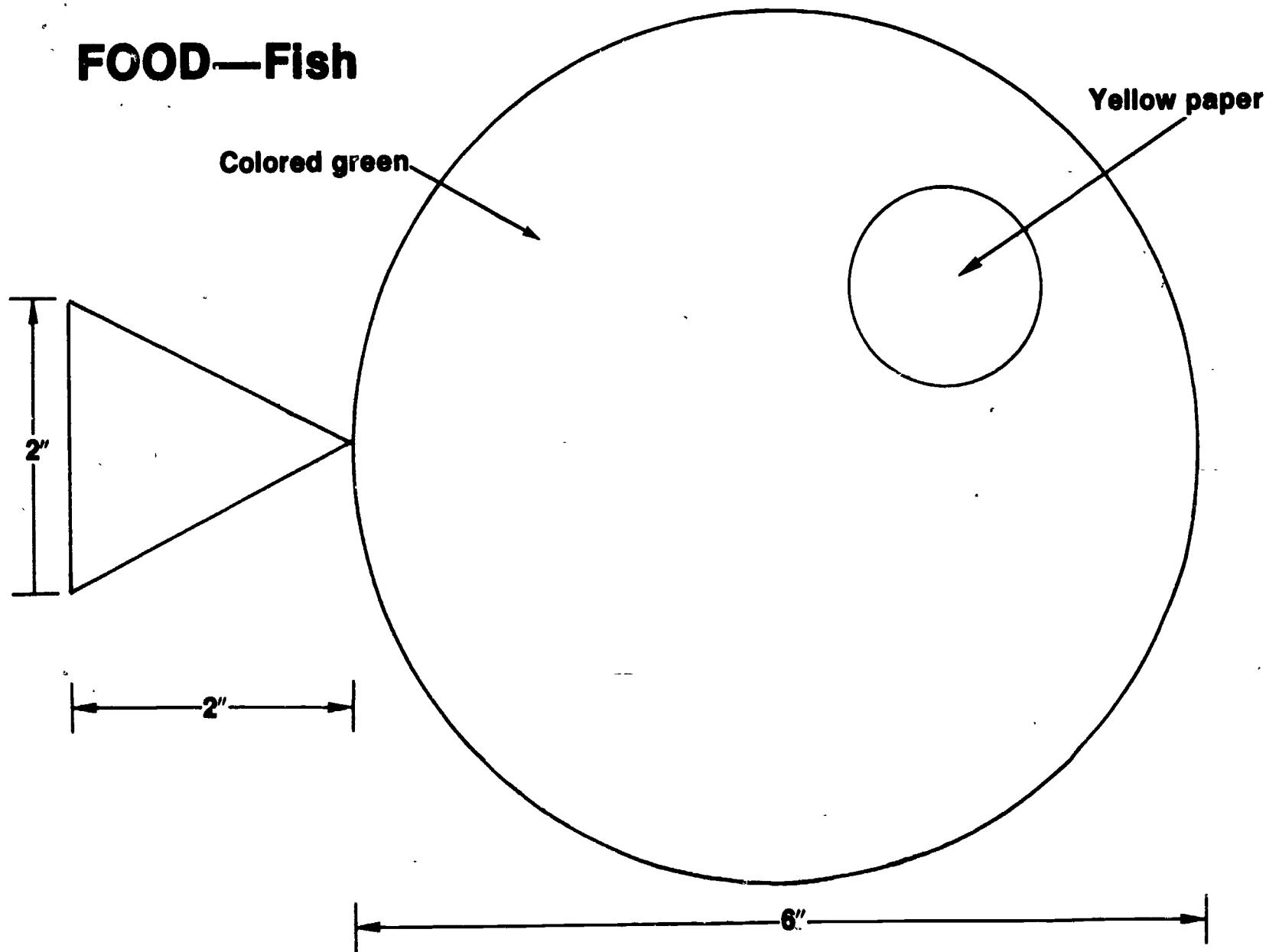
This question leads to a discussion of the decision-making process.

#### Evaluation

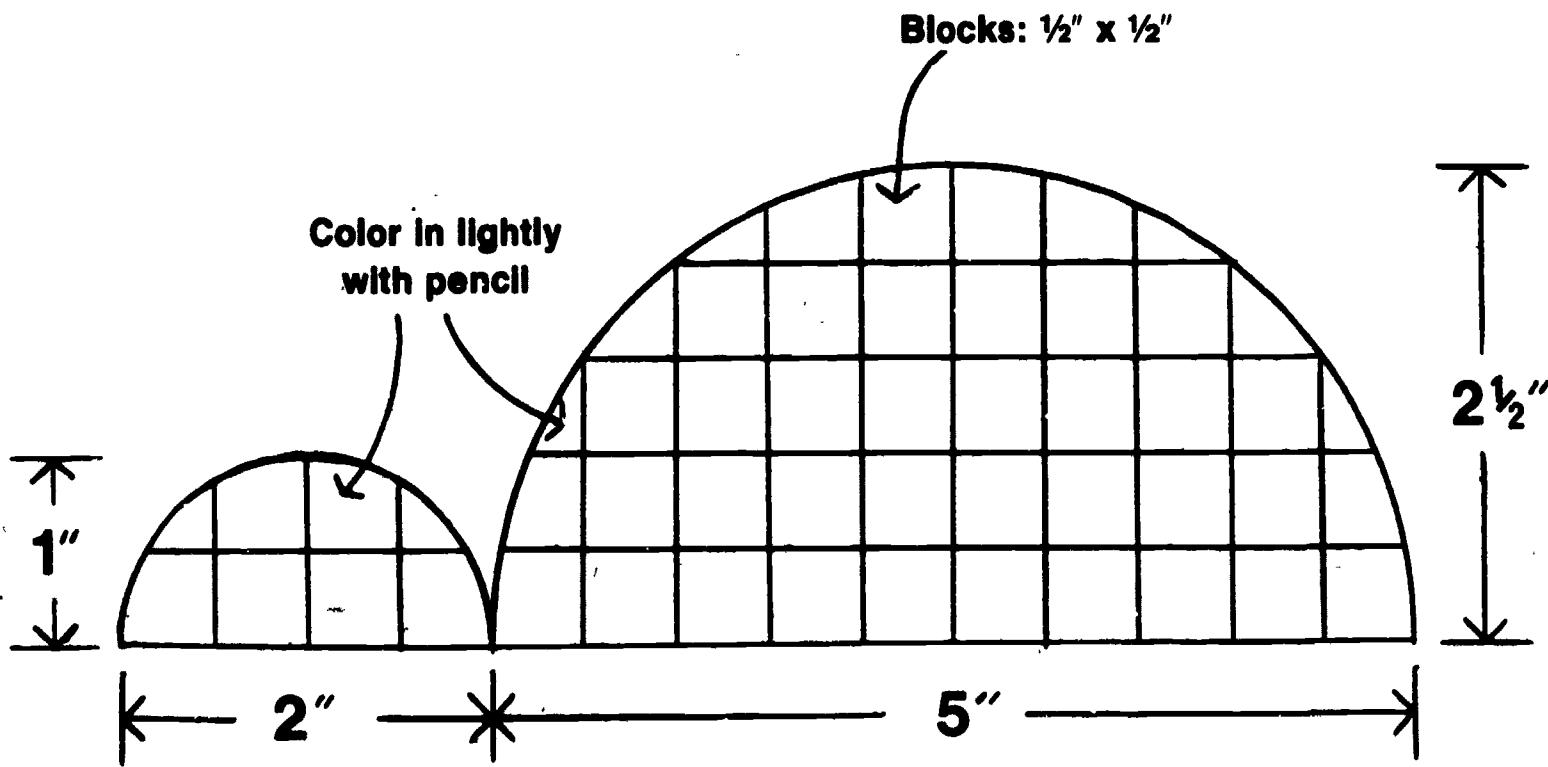
1. Assess the quality of participation of the students in the activity.
2. Have students complete Handout 4-2 as a test.
  - a. Define the word "scarcity." (Scarcity is a condition that exists when resources are insufficient to produce enough goods and services to satisfy everybody's wants.)
  - b. Define the word "economics." (Economics is the study of how people choose to use limited resources in order to produce, distribute, and

- c. consume goods and services that satisfy human wants.)
- d. What three basic questions must economic systems confront? (What goods and services and how much of each should be produced? How should goods and services be produced? Who is to receive the goods and services that are produced?)
- e. Explain the term "division of labor." (Division of labor refers to the concentration by a worker or group of workers on only one or a limited number of tasks so as to increase productivity.)
- f. Explain the term "productivity." (Productivity refers to the amount of production that results from a given expenditure of human effort (labor). NOTE: The foregoing is the most common use of the word. Productivity also refers to the amount of output that results from the use of a given amount of natural resources (land) or of buildings and equipment (capital). Productivity is treated more fully in Lesson 10.)
- g. Explain the term "interdependence." (Interdependence refers to the relations among people, businesses, regions, or countries that make the existence or actions of one necessary to the well-being of the other.)

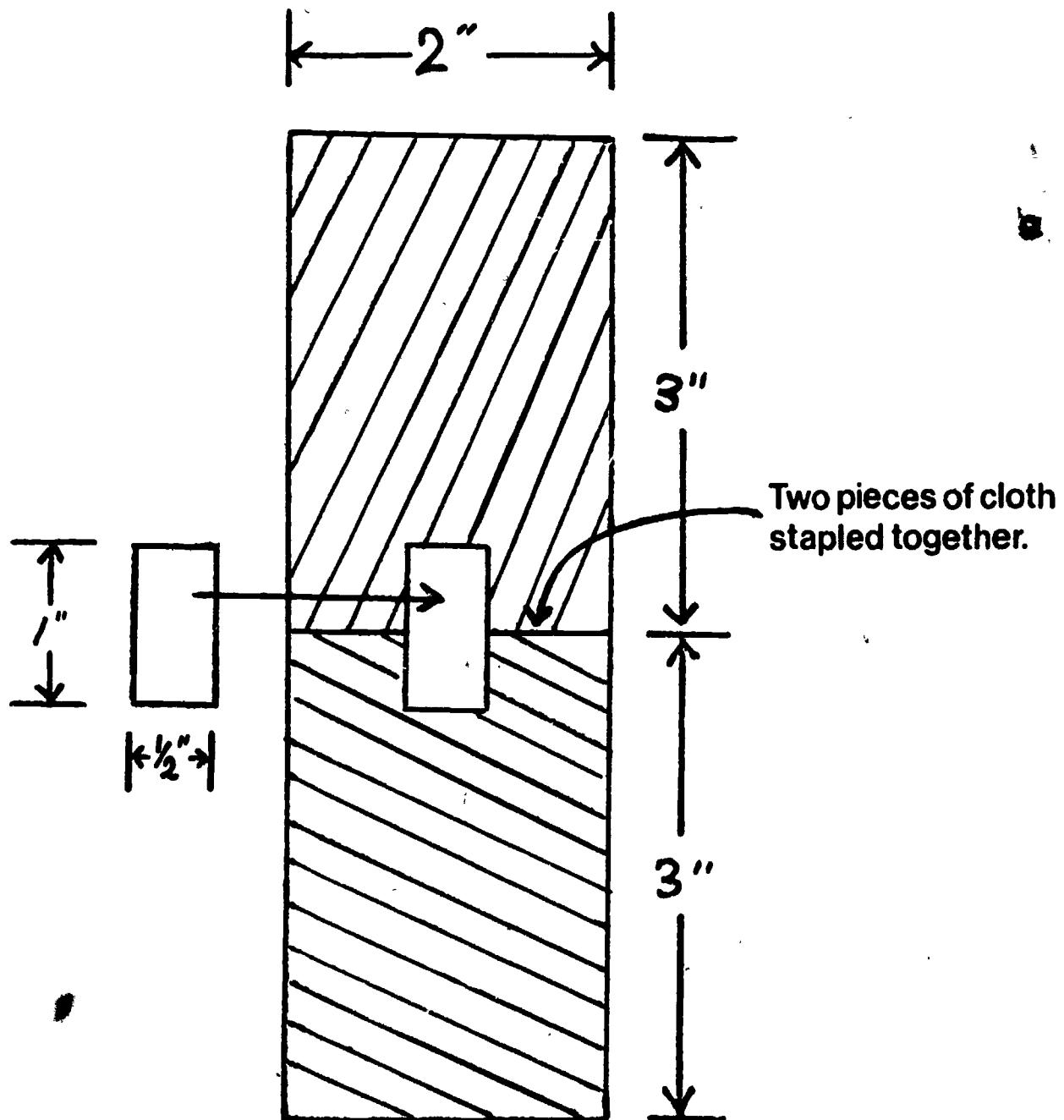
## FOOD—Fish



# SHELTER—Igloo



## CLOTHING—Poncho



## Handout 4-1

### ARCTIC SURVIVAL

**SETTING:** The class has been lost on an Arctic island with little hope of rescue. Your individual goal is to survive.

#### PROCEDURES AND RULES

1. You will each be required to produce one of each of the three types of basic goods corresponding to the model sheets that have been posted in the classroom.
2. Your reproductions from the models must be exact in every detail. No tracing of the models is allowed. The teacher may require you to improve any inexact reproduction or tear it up and tell you to start over and make another one. Use cloth to make the poncho model and paper to make the fish and the igloo.
3. When you complete a reproduction, hand it in to the teacher immediately in order to earn credit for it.
4. You may use only the equipment and materials your teacher supplies to you, and you must not talk with other students until allowed to by the teacher. No extra pencils, etc., are permitted. You may not break the pencils in half.
5. Because some of the tools you will be using, especially the compasses, are potentially dangerous, no roughhousing will be allowed.
6. If you have any questions, the teacher will answer them for you individually. However, by asking questions you will be losing valuable production time.
7. The time limit for the task is 15 minutes, or 20 minutes, as the teacher specifies.
8. At the end of the allotted time, turn in materials, equipment, and partially completed reproductions to the teacher.

## Handout 4-2

### ARCTIC SURVIVAL QUIZ

Name \_\_\_\_\_

Class \_\_\_\_\_

Answer each of the following questions.

a. Define the word "scarcity." \_\_\_\_\_

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b. Define the word "economics." \_\_\_\_\_

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c. What three basic questions must economic systems confront? \_\_\_\_\_

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d. Explain the term "division of labor." \_\_\_\_\_

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e. Explain the term "productivity." \_\_\_\_\_

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f. Explain the term "interdependence." \_\_\_\_\_

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From: Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9), 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Lesson 5: The Game of Barter

**TIME REQUIRED:** One period or less

**MAJOR CONCEPTS:** Exchange (or trade)  
Money

**RELATED CONCEPT:** Markets

**Instructional Objectives:** Students will

- Explain why people engage in exchange or trade;
- Describe the difficulties associated with barter;
- Define money and explain how it facilitates trade.

**Rationale:** It is much harder to conduct trade by barter than with money. That is one of the reasons money has come into use. Students should understand how and why money makes trade easier.

**Suggested Use:** Courses in world history (emergence of money as a medium of exchange in ancient civilizations and to explain the breakdown of trade after the fall of the Roman Empire); U.S. history (problems created by separate colonial currencies); by the use of furs as a medium of exchange in the West; civics, home economics, and business (to show the usefulness of money as a medium of exchange).

**Materials:** Two compasses, six pencils, two rulers, two scissors, and four 50¢ pieces of play money. Copy of Handout 5-1 for each student.

**Procedure:**

1. Ask students why people buy and sell goods and services. (Individuals cannot produce everything they need. Consequently, they exchange the things they can make for goods and services other people produce.)
2. Explain the difference between barter trade and trade using money. (Essentially, in barter people directly exchange specific goods or services only for other specific goods or services. With the use of money, specific goods and services are traded for money, and the money received can be exchanged for *any other* goods or services. The use of money makes it easier for people to trade for what they need or want.)
3. Ask students to describe exchanges they, their friends, or parents have recently made and then have them classify the transactions as barter or money exchanges.
4. Select two "trader" groups of four students each. Remaining students act as observers of the trading

sessions. Group One will be a barter group and must conduct the trades listed below. Put the following trades on the chalkboard.

Player	Has	Wants
A	1 compass	3 pencils
B	3 pencils	1 ruler
C	1 ruler	1 scissors
D	1 scissors	1 compass

5. After the trading session, ask the traders:
  - a. What problems did you have trying to make a trade? (Difficulty in finding someone who was willing to exchange what traders possessed for what they wanted.)
  - b. How did you solve the problem? (Made several trades to get what was desired.)
6. Then ask entire class: How might the trading have been made easier? (By using money in the trading process.)
7. Group Two will conduct the same trades but will be able to use money (50¢ pieces of play money). Each player is willing to sell the item in the "has" column for 50¢ and is willing to buy the item in the "wants" column for 50¢.

Player	Has	Wants
A	1 compass + 50¢	3 pencils
B	3 pencils + 50¢	1 ruler
C	1 ruler + 50¢	1 scissors
D	1 scissors + 50¢	1 compass

8. After the trading session, ask the class:
  - a. In which round was it easier to make a trade? (The second should have been easier, since money is generally acceptable and does not require the correspondence of wants in the way barter does.)
  - b. How does the use of money facilitate the trading process? (It is convenient to use and has general acceptability.)
  - c. What is one attribute of money? (Money is anything that can be widely used as a means of payment, that is, it is a generally accepted medium of exchange.)
9. Tell students that money is also a measure of value, a means of storing value, and a standard of deferred payment. Ask them for examples of how money functions in these ways. (Possible answers: Measure of value: Money expresses the value of goods and services in terms of prices. One shirt

The trading situations were adapted from *A Guide to Trade-Offs*, by Bonnie Meszaros, with permission of the publisher. © 1978 Agency for Instructional Television, Bloomington, Indiana; all rights reserved.

may be valued at \$8.00 and another at \$16.00. Store of value: Money can be saved in order to be spent in the future. Standard of deferred payment: Money may be borrowed—or loaned—for repayment in the future.)

**Evaluation:**

1. Assess quality of student responses to postgame questions.
2. Have students complete Handout 5-1. The questions and expected student responses are:

**SITUATION ONE:**

- a. What problem exists in this situation? (No two participants can exchange directly, but must involve the third in a three-way exchange.)
- b. Would the use of money be helpful? Why? (Yes. Money could be used as a medium of exchange so that wants and possessions need not match perfectly.)

**SITUATION TWO:**

- a. What problem exists in this situation? (The two men have no means of exchanging the goods that are of unequal value.)

- b. Would the use of money be helpful? Why? (Yes. Money is a measure of value. By using money, Mr. Acker and Ms. Mentor could agree on the value of both items in money and make up any difference in value by using money. Mr. Acker would trade his saw and some money for Ms. Mentor's motorized bicycle.)

**REVIEW**

3. What is meant by "money is any generally accepted medium of exchange"? (It is something that can be widely used as a means of payment.)
- b. What is meant by "money serves as a measure of value"? (Money expresses the value of goods and services in terms of prices.)
- c. What is meant by "money serves as a store of value"? (It can be saved in order to be spent in the future.)
- d. What is meant by "money serves as a standard of deferred payment"? (Money may be borrowed—or loaned—for repayment in the future.)

# Handout 5-1

Name \_\_\_\_\_

Class \_\_\_\_\_

Read the descriptions below carefully and then answer the questions.

## SITUATION ONE

Loretta has a model airplane and wants a model racing car. Jeffrey has a racing car. He is willing to trade but wants a model pickup truck. Juanita wants an airplane and has a pickup truck.

a. What problem exists in this situation? \_\_\_\_\_

\_\_\_\_\_

b. Would the use of money be helpful? Why? \_\_\_\_\_

\_\_\_\_\_

## SITUATION TWO

Mr. Acker has an electric saw he wishes to exchange for a motorized bicycle. Ms. Mentor has a motorized bicycle she is willing to trade but thinks that her bike is worth twice as much as Mr. Acker's saw.

a. What problem exists in this situation? \_\_\_\_\_

\_\_\_\_\_

b. Would the use of money be helpful? Why? \_\_\_\_\_

\_\_\_\_\_

## REVIEW

a. What is meant by "money is any generally accepted medium of exchange"? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b. What is meant by "money serves as a measure of value"? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

c. What is meant by "money serves as a store of value"? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

d. What is meant by "money serves as a standard of deferred payment"? \_\_\_\_\_

\_\_\_\_\_

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From Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9), 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Lesson 6: An Economics Hunt

**TIME REQUIRED:** Two class periods

**MAJOR CONCEPTS:** Scarcity  
Productive resources  
Division of labor  
Opportunity cost

**Instructional Objectives:** Students will

- Discover how economic concepts apply to the various activities that take place in their school by finding examples of scarcity, human resources, division of labor, and opportunity costs;
- Find examples in their textbooks of the concepts mentioned above.

**Rationale:** Economics can be brought home to students by showing that the concepts they are learning apply widely to the operation of a school.

**Suggested Use:** Most suitable in world studies, U.S. history, geography.

**Materials:** The school itself; course textbooks; copy of Handout 6-1 for each student.

**Procedure:**

1. Tell students that they are going to find out how economics affects an important part of their lives—school. Many economic concepts apply to the functioning of a school.
2. Tell students they are going to tour the building and grounds to "hunt" for the ways in which economics affects their school.
3. Review with students the meaning of the concepts "scarcity," "productive resources," "division of labor," and "opportunity costs". They must understand these clearly, for they will be looking for examples of these concepts.
4. Distribute copies of Handout 6-1. Students should fill it out either individually or in small groups as they tour the school or after they return.
5. Take students on a tour of the building. Try to include the office, clinic, school store, cafeteria, storage rooms, classrooms, school grounds, etc. (NOTE: As an alternate activity, students could remain in the classroom and think up applications of the concepts to the school.)
6. Upon returning to the classroom, have students complete the handout if they have not already done so.
7. Discuss the students' examples, which can vary a good deal. Those listed below are typical. You

might also want to discuss with students their understanding of the way resources are used and the alternate uses they might prefer.

**SCARCITY.** Not enough paper or other supplies, space, personnel, money, time, equipment, forms for school procedures, etc.

**NATURAL RESOURCES.** Land on which school stands; air; water used by students, gardeners, science teachers (in experiments), etc.

**HUMAN RESOURCES.** Students, administrators and teachers, support personnel, etc.

**CAPITAL RESOURCES.** Building, typewriters, shop machinery, projectors, school desks, chairs, etc.

**DIVISION OF LABOR:**

- Functions in schools are performed by administrators, counselors, teachers, students, clerks, secretaries, maintenance workers, cafeteria workers, nurses, bus drivers.
- Various functions are also subdivided into special assignments; for example, administrators can be in charge of curriculum, public relations, discipline, attendance, budget, or scheduling.
- In the classroom, students may have special tasks such as cleaning the chalkboard or passing out materials.

**OPPORTUNITY COSTS:** There are many ways resources can be used in the school. The opportunity cost of the ways schools are currently using their resources is the next most desirable way to use the resources. For example,

- Money spent buying textbooks cannot be spent for other things.
- Students who engage in extracurricular activities give up anything else they could be doing during that time, such as odd jobs, studying, watching TV, engaging in sports, etc

8. The basic economic concepts in this lesson can be applied in a variety of contexts. Divide students into small groups. Instruct each to look through the course textbook to find examples of each of the concepts listed on the handout. List these on the chalkboard and discuss them with students.

**Evaluation:**

1. Assess the quality of student participation in class discussion.
2. Evaluate answers on Handout 6-1.
3. Evaluate responses to activity in procedure 8.

## Handout 6-1

Name \_\_\_\_\_

Class \_\_\_\_\_

**DIRECTIONS:** Write down as many examples in each category as you observe on your tour. If you do not have enough room, attach more sheets of paper.

**SCARCITY** \_\_\_\_\_

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**NATURAL RESOURCES** \_\_\_\_\_

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**HUMAN RESOURCES** \_\_\_\_\_

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**CAPITAL RESOURCES** \_\_\_\_\_

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**DIVISION OF LABOR** \_\_\_\_\_

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**OPPORTUNITY COST** \_\_\_\_\_

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From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Lesson 7: A Market in Wheat

**TIME REQUIRED:** Two or three class periods

**MAJOR CONCEPTS:** Supply  
Demand  
Market price  
Price mechanism

**RELATED CONCEPTS:** Charting  
Equilibrium price  
Competitive market  
Voluntary exchange

**Instructional Objectives:** Students will

- Experience what it is like to be buyers and sellers in a competitive marketplace;
- Make generalizations about and discuss the nature of the competitive marketplace;
- Observe that prices tend to move toward equilibrium in a competitive marketplace;
- Define supply and demand;
- Explain the law of supply and demand.

**Rationale:** The game is designed to convey to students how a competitive market works. Although most product and service markets are not as competitive as the wheat market in this activity, students can begin to understand how prices are generally determined in any market by the forces of supply and demand.

**Suggested Use:** Classes in citizenship, business, home economics, geography, U.S. history.

**Materials:**

1. Thirty-two buy (Figure 7-1) and 32 sell cards (Figure 7-2). Make cards according to the following distribution:

BUY CARDS		SELL CARDS	
Buy Price	No.	Sell Price	No.
\$3.50	2	\$3.50	4
3.70	2	3.70	6
3.90	2	3.90	6
4.10	2	4.10	4
4.30	4	4.30	4
4.50	4	4.50	2
4.70	4	4.70	2
4.90	4	4.90	2
5.10	4	5.10	2
5.30	4		

2. Transparency of Figure 7-3.
3. Classroom sets of copies of handouts 7-1, 7-2, and 7-3, 7-4, and 7-5.
4. Set of sellers' armbands, as described in Handout 7-1. Prepare these ahead of time.

**NOTE:** This activity requires a class of at least 25 students to be effective. Up to 50 students can participate if the room is large enough.

### Procedure:

1. Read Handout 7-1 with students. (NOTE: You may wish to designate a student to handle the distribution and receipt of the buy and sell cards during the game and another to record each transaction on the tally sheet. Buy and sell cards should be kept separately and shuffled between rounds.)
2. Clear center of room and designate it as the marketplace.
3. Divide class into two equal groups. One group will be the sellers, the other the buyers. Explain that buyers will be buyers throughout the game, and sellers will be sellers throughout the game. Give sellers their armbands.
4. Hand out individual score sheets (Handout 7-2) on which participants can record their transactions. Review details of the score sheet if necessary.
5. Make sure students understand how to calculate "profit" on their score sheets.
6. Explain that you will conduct five rounds of trading sessions of five minutes each. After the first round, tell students it was for practice but that the next four rounds will count. Announce to the students when one minute remains in each round.
7. After each trading round, allow students time to figure their net losses and gains—their "profit." Before discussion (Procedure 10) have students calculate their *total* profit or loss in rounds 2 through 5.
8. Encourage students to make as many deals as they can in the time permitted. Explain that it is permissible to take a loss in order to get a new transaction card. Try not to give away the fact that the students who will have the highest profits are usually those who engage in the most transactions. This fact will be "discovered" during the discussion following completion of the game (Procedure 10).

This version of The Wheat Game combines procedures used in "The Wheat Market Game," *Teacher's Manual for Economics Readings for Students in Ninth Grade Social Science*, by Mindella Schults (Developmental Economic Education Program [DEEP] of the Pittsburgh Public Schools, 1967), pp. 44-53, and "The Big Apple Game," *In The Market Place: A Basic Unit on the American Economic System* (Olympia, Wash.: Office of the Superintendent of Public Instruction, 1976; used by permission).

9. During nontrading time between rounds 1 and 2, direct students' attention to the market record on the tally sheet. Say that it contains useful information for them. Do not elaborate.
10. Conduct postgame discussion:
  - a. What was the price the wheat was most frequently sold at in each round? (Have students examine data on their score sheets and on the class tally sheet.)
  - b. In which round was there the greatest spread in price? (Examine data.)
  - c. Why did the prices become more clustered? (Greater competition is the most important cause for the clustering of prices. This phenomenon represents the tendency of a competitive market to move toward an equilibrium price as information increases.)
  - d. Who determined the "market price" for wheat, buyers or sellers? (Both buyers and sellers did by their interaction in the marketplace.)
  - e. How did supply and demand (sellers and buyers) influence price? (Sellers tried to get higher prices; buyers tried to get lower prices. Because there was competition among members of each group, no one could exercise control over the price.)
  - f. Why were some students able to make more total profits than others? (Probable answer: They were able to conclude many transactions, each of which yielded a small profit.)
11. The buy and sell cards may also be used for an exercise in graphing. The information on the cards can be converted into supply and demand schedules and employed to construct a graph. The graph will consist of a line for market supply and a line for market demand. The point at which the lines intersect represents the market price for these schedules of supply and demand.

Give the students handouts 7-3 (blank graph) and 7-4 (the summarized data). Tell the students to construct the graph by placing dots at the points that correspond to all the combinations of prices and quantities given in the supply schedule on Handout 7-4. They should then do the same, but using crosses instead of dots, for the demand schedule. Connecting the supply dots produces the supply schedule; connecting the demand crosses produces the demand schedule. Remind the students to label each curve. When they have finished, project the accompanying completed graph or give each student a copy of it.

The graph indicates that, if given enough time, a perfectly competitive market would reach an equilibrium price of \$4.30 per bushel and that 240 bushels of wheat would be sold at that price. Obviously, a price of about \$4.30 will not prevail until students have played a few rounds or until they get the full hang of the game. But as the students' experience accumulates, their transactions should start to move toward the equilibrium price.

12. After students complete the graphing exercise, ask:
  - a. What does the demand schedule show? (The quantities of wheat demanded at various prices. Explain to students that this schedule is what economists mean by the shorthand term "demand.")
  - b. What does the supply schedule show? (The quantities of wheat supplied at various prices. Explain to students that this is what economists mean by the shorthand term "supply.")
  - c. What relationship exists between the price of a good or service and the quantity people are willing to buy? (When prices rise the quantity demanded decreases, and vice versa—assuming other conditions remain unchanged.)
  - d. What relationship exists between the price of a good or service and the quantity people are willing to supply or produce? (When prices rise, the quantity supplied increases, and vice versa—assuming other conditions remain unchanged.)
13. OPTIONAL. Use to show the effects of changes in supply and in demand on price.
  - a. Conduct one or more additional rounds of the game but cut the number of sell cards of each denomination in half. Have students record their transaction prices and their gains or losses on their score sheets. Examine the tally sheet and ask students to explain how and why prices changed as they did. (Prices should have increased because of restricted supply.)
  - b. Next, conduct one or more additional rounds with the number of buy cards of each denomination cut in half. Have students record their transactions. Examine the tally sheet and ask students to explain how and why prices changed as they did. (Prices should have decreased because of reduced demand.)

#### Evaluation:

1. Assess the quality of student contributions to class discussions.
2. Have students take the Market Game Test (Handout 7-5).
  - a. What does the term "supply" mean? (The amount of a good or service that would be offered for sale at various prices.)
  - b. What does the term "demand" mean? (The amount of a good or service that buyers would be willing to purchase at various prices.)
  - c. In your own words, explain the law of supply and demand, i.e., (1) the relationship between quantity supplied and price and (2) the relationship between quantity demanded and price. (Assuming other conditions remain unchanged, when price increases, the quantity demanded decreases, and when price de-

creases, the quantity demanded increases; when prices rise, the quantity supplied increases, and when prices fall, the quantity supplied decreases.)

d. Use the following terms to complete the sentences below. You will not need to use all of the terms.

increase remain unchanged be less  
decrease be greater

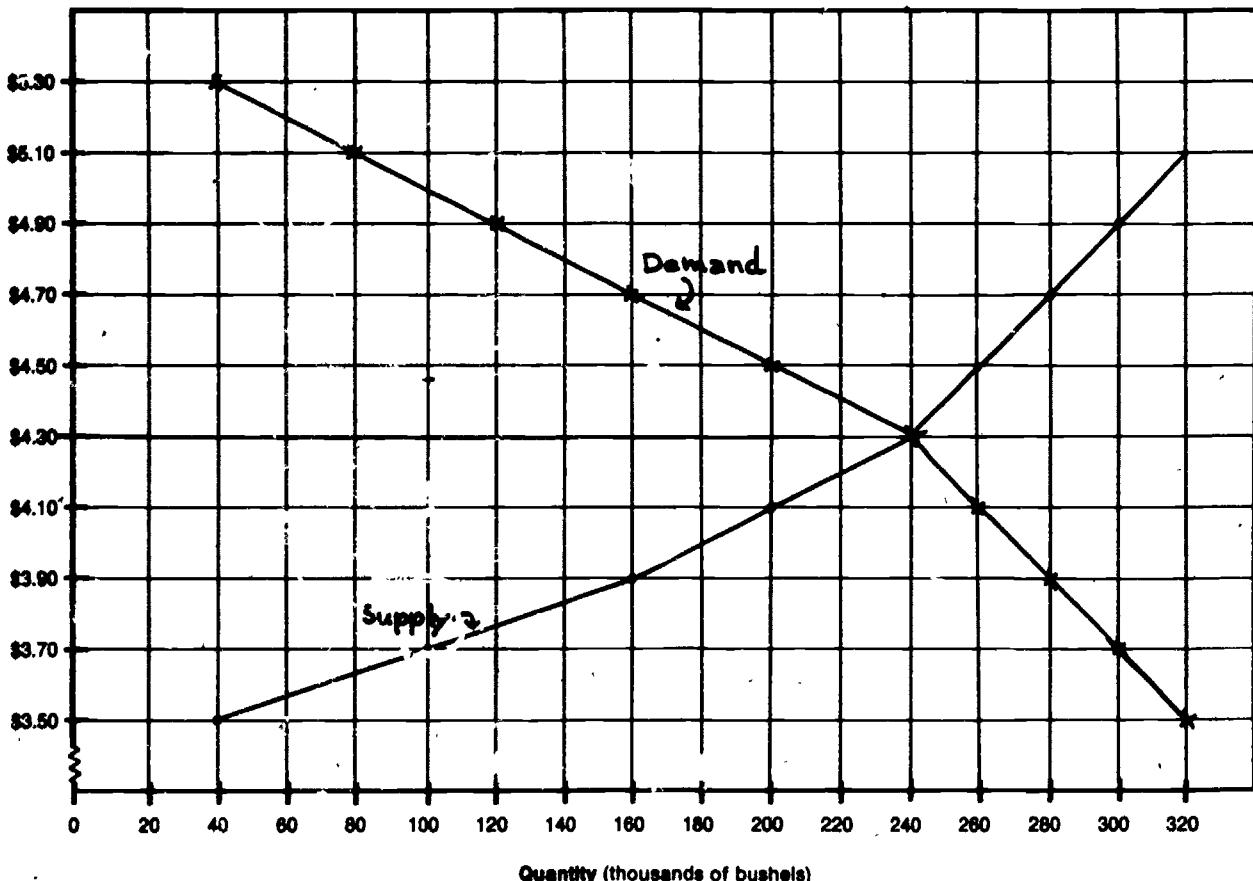
(1) If everything else remains the same, the amount of wheat available for sale at a

price of \$4.90 per bushel would probably be greater than the amount available for sale at a price of \$3.90 per bushel.

(2) However, the demand for wheat would be less at \$4.90 than at \$3.90 per bushel.  
(3) All things being equal, if less wheat were demanded then the prices charged for wheat would probably decrease.  
(4) If the amount of wheat for sale doubled and the amount of wheat people were willing to buy doubled, the price would probably remain unchanged.

### WHEAT SUPPLY AND DEMAND

Price per bushel



## Handout 7-1

### HOW TO PLAY "A MARKET IN WHEAT"

Read these instructions carefully as your teacher reads them aloud.

1. The students who wear arm bands are **SELLERS** of wheat.
2. The students without arm bands are **BUYERS** of wheat.
3. Each buyer will have only one buy order at a time. It will say, "You are authorized to buy 10 bushels of wheat, paying as little as possible. If you pay more than \_\_\_\_\_ per bushel, for a total of \_\_\_\_\_, you lose money." The exact price and total will be written on the order. DO NOT REVEAL THE PRICE. Record the price on your buy order on your student score sheet. When the round starts, try to buy at the lowest price you can. You may buy at a price higher than that on your buy card in order to obtain your wheat. As soon as you have bought wheat, record the transaction on your score sheet. Then, turn the two cards in and get another buy order from the teacher. If you have bought no wheat during a round, get a different buy order from the teacher before the start of the next round.
4. Each seller will have only one sell order at a time. It will say, "You are authorized to **SELL** 10 bushels of wheat for as much as possible. If you accept less than \_\_\_\_\_ per bushel, for a total of \_\_\_\_\_, you lose money." The exact price and total will be written on the order. DO NOT REVEAL THE PRICE. Record the price on your sell order on your student score sheet. When the round starts, try to sell your wheat at the highest price you can. You may sell at a price lower than that on your sell order in order to get rid of your wheat. As soon as you have sold wheat, record the transaction on your score sheet. Then, go to the teacher to report the selling price and get another card. If you have sold no wheat during a round, get a different sell order from the teacher before the start of the next round. Remember, the **SELLER** reports the price.
5. When the teacher says "Start," sellers and buyers should meet and try to agree on a price for 10 bushels of wheat. Any buyer can talk with any seller.
6. The goal of both buyers and sellers is to make a profit. The buyers do so by buying wheat for a lower price than is shown on their cards. The sellers do so by selling for a higher price than is on their cards.
7. All students are free to make as many transactions in a round as time permits.
8. Every time a seller reports an agreement to the teacher, it will be entered on the tally sheet the teacher is keeping. WATCH THE TALLY SHEET SO THAT YOU WILL KNOW WHAT PRICES ARE BEING PAID.
9. As soon as buyers and sellers receive new cards during a round, they should return to the market to try to reach another agreement with each other or with different buyers and sellers.

### HOW TO USE THE SCORE SHEET (Handout 7-2)

Keep track of your progress during the game on this score sheet. Tally your gains and losses by taking the difference between the dollar worth of the ten bushels as stated on your card and the dollar worth of the transaction.

If you are a buyer, you will make a gain if you buy at a lower total than the amount shown on your card. If you buy at a higher total, you will suffer a loss.

If you are a seller, you will gain if you sell at a higher total than the amount shown on your card. At a lower total, you will suffer a loss.

When the teacher instructs you to do so, total your gains and losses and write them in the designated spaces.

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

# Handout 7-2

## SCORE SHEET FOR "A MARKET IN WHEAT"

Name \_\_\_\_\_ Class \_\_\_\_\_

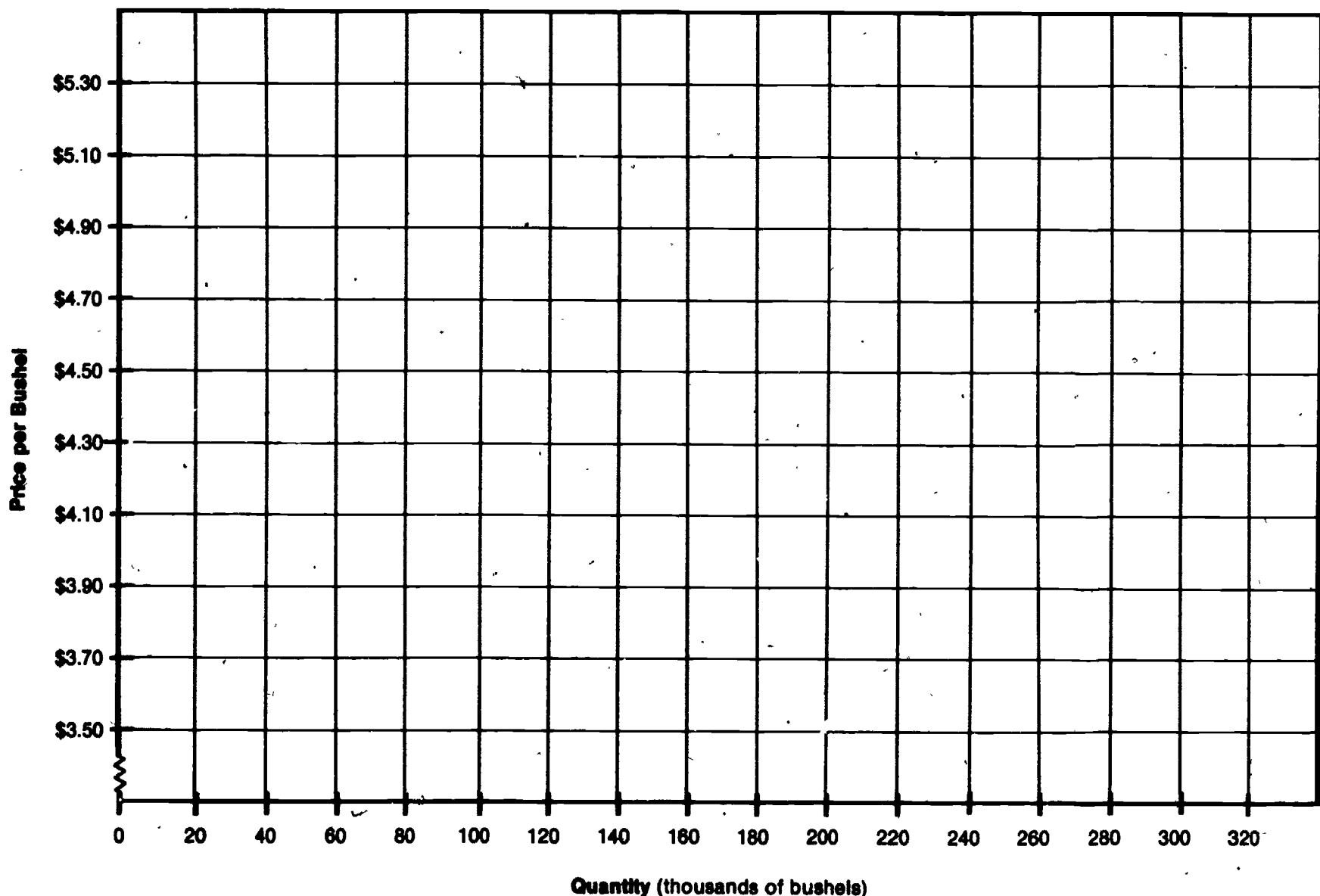
Circle one: Buyer      Seller

Transaction Number	Price per Bushel		Dollar Worth of 10 Bushels		Gain	Loss	Profit (gain minus loss)
	On Card	In Transaction	On Card	In Transaction			
1							
2							
3							
4							
<b>TOTAL FOR ROUND 1</b>							
1							
2							
3							
4							
<b>TOTAL FOR ROUND 2</b>							
1							
2							
3							
4							
<b>TOTAL FOR ROUND 3</b>							
1							
2							
3							
4							
<b>TOTAL FOR ROUND 4</b>							
1							
2							
3							
4							
<b>TOTAL FOR ROUND 5</b>							
<b>GRAND TOTAL</b>							

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Handout 7-3

### WHEAT SUPPLY AND DEMAND



## Handout 7-4

Price	No. of Sellers Willing to Sell 10 Bushels of Wheat at the Price Indicated or at a Higher Price	Supply Schedule (cumulative no. of bushels of wheat available for sale at the price indicated or at a higher price)
\$3.50	4 sellers (= 40 bushels)	40
3.70	6 sellers (= 60 bushels)	100
3.90	6 sellers (= 60 bushels)	160
4.10	4 sellers (= 40 bushels)	200
4.30	4 sellers (= 40 bushels)	240
4.50	2 sellers (= 20 bushels)	260
4.70	2 sellers (= 20 bushels)	280
4.90	2 sellers (= 20 bushels)	300
5.10	2 sellers (= 20 bushels)	320

Price	No. of Buyers Willing to Buy 10 Bushels of Wheat at the Price Indicated or at a Lower Price	Demand Schedule (cumulative no. of bushels of wheat buyers would be willing to buy at the price indicated or at a lower price)
\$5.30	4 buyers (= 40 bushels)	40
5.10	4 buyers (= 40 bushels)	80
4.90	4 buyers (= 40 bushels)	120
4.70	4 buyers (= 40 bushels)	160
4.50	4 buyers (= 40 bushels)	200
4.30	4 buyers (= 40 bushels)	240
4.10	2 buyers (= 20 bushels)	260
3.90	2 buyers (= 20 bushels)	280
3.70	2 buyers (= 20 bushels)	300
3.50	2 buyers (= 20 bushels)	320

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

# Handout 7-5

## MARKET GAME TEST

Name \_\_\_\_\_

Class \_\_\_\_\_

a. What does the term "supply" mean? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b. What does the term "demand" mean? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

c. In your own words, explain the law of supply and demand, i.e. (1) the relationship between quantity supplied and price and (2) the relationship between quantity demanded and price. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

d. Use the following terms to complete the sentences below. You will not need to use all of the terms.

increase  
decrease

remain unchanged

be less  
be greater

- (1) If everything else remains the same, the amount of wheat available for sale at a price of \$4.90 per bushel would probably \_\_\_\_\_ than the amount available for sale at a price of \$3.90 per bushel.
- (2) However, the demand for wheat would \_\_\_\_\_ at \$4.90 than at \$3.90 per bushel.
- (3) All things being equal, if less wheat were demanded then the prices charged for wheat would probably \_\_\_\_\_.
- (4) If the amount of wheat for sale doubled and the amount of wheat people were willing to buy doubled, the price would probably \_\_\_\_\_.

## Figure 7-1

### BUY CARDS

<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$5.30 per bushel, for a total of \$53.00, you lose money.</p>	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$5.10 per bushel, for a total of \$51.00, you lose money.</p>	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$4.90 per bushel, for a total of \$49.00, you lose money.</p>
<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$4.70 per bushel, for a total of \$47.00, you lose money.</p>	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$4.50 per bushel, for a total of \$45.00, you lose money.</p>	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$4.30 per bushel, for a total of \$43.00, you lose money.</p>
<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$4.10 per bushel, for a total of \$41.00, you lose money.</p>	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$3.90 per bushel, for a total of \$39.00, you lose money.</p>	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$3.70 per bushel, for a total of \$37.00, you lose money.</p>
	<p>You are authorized to <b>BUY 10 bushels of wheat,</b> paying as little as possible. If you pay more than \$3.50 per bushel, for a total of \$35.00, you lose money.</p>	

Figure 7-2

SELL CARDS

<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$5.10 per bushel, for a total of \$51.00, you lose money.</b></p>	<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$4.90 per bushel, for a total of \$49.00, you lose money.</b></p>	<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$4.70 per bushel, for a total of \$47.00, you lose money.</b></p>
<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$4.50 per bushel, for a total of \$45.00, you lose money.</b></p>	<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$4.30 per bushel, for a total of \$43.00, you lose money.</b></p>	<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$4.10 per bushel, for a total of \$41.00, you lose money.</b></p>
<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$3.90 per bushel, for a total of \$39.00, you lose money.</b></p>	<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$3.70 per bushel, for a total of \$37.00, you lose money.</b></p>	<p>You are authorized to <b>SELL 10 bushels of wheat for as much as possible. If you accept less than \$3.50 per bushel, for a total of \$35.00, you lose money.</b></p>

Figure 7-3

CLASS TALLY SHEET

Price Per Bushel	Round 1	Round 2	Round 3	Round 4	Round 4	Total of Rounds 2-5
\$3.50						
\$3.70						
\$3.90						
\$4.10						
\$4.30						
\$4.50						
\$4.70						
\$4.90						
\$5.10						
\$5.30						

## Lesson 8: The Consumer Price Index and Price Change

**TIME REQUIRED:** Two or three class periods

**MAJOR CONCEPTS:** Consumer price index  
Price level change  
Index numbers

**RELATED CONCEPTS:** Inflation  
Percent change (rates of change)  
Averaging  
Weighting  
Charts and tables

**Instructional Objectives:** Students will

- Define price;
- Define inflation;
- Describe the construction of the Consumer Price Index (CPI);
- Calculate changes in the CPI;
- Compare rates of change in prices.

**Rationale:** There have been times in history when the general price trend—i.e., the average of all prices—has been falling (a period of *deflation*); other times when the trend has been more or less level (a period of *price stability*); and times when the trend has been rising markedly (a period of *inflation*). As everyone is aware, the United States—and the rest of the world as well—has lately been undergoing a period of inflation. This lesson is designed to increase students' understanding of inflation, to teach them some basics of how one of the chief measures of trends in the price level—the Consumer Price Index (CPI)—is calculated, and also to introduce them to (or hone their skills at) some measurement concepts, including index numbers. Index numbers are used to present a wide variety of statistics in economics and in many other fields. (For a brief overview of the causes of inflation, see pages 2-3. For a complete list of all the goods and services in the CPI, see the *Monthly Labor Review*, listed below under Materials.)

**Suggested Use:** This lesson can be used in any course such as civics, home economics, business, mathematics, etc., that deals with inflation, prices, indexes, or the Consumer Price Index in particular.

### Materials:

1. Class set of copies of handouts 8-1 and 8-2.
2. Recent information on the CPI from the back statistical pages of recent issues of the *Monthly Labor Review*, published by the Bureau of Labor Statistics of the U.S. Department of Labor. Copies are usually available in a public library.

### Procedure:

1. Ask the class to mention goods or services they bought lately for themselves or their families or that other members of their families have bought.

Examples: food; other commodities; automobile-related expenses; tickets to concerts, movies, sports events; purchases of services such as dry cleaning, shoe repairs; bus and other fares; medical and dental services, etc.

Get as large and as varied a selection of such purchases as possible and list them on the chalkboard. Then go down the list and ask the students whether the price for each item has been going up, staying about the same, or going down. If up, place a plus sign next to the item; if down, a minus sign; if about the same, a zero.

Should inflation continue—as seemed likely when this lesson was being prepared—the chances are that most of the entries will be plusses. After the students become aware—or are made aware—of the preponderance of plusses, ask them the following two questions.

- a. If the majority of prices are going up, what is the situation generally called? (Inflation.)
- b. How can inflation be defined? (A sustained rise in the general price level, that is, in the average of all prices.)

2. Write the words Consumer Price Index (CPI) on the board. Ask the students to define "consumer" (buyer of a product or service) to be used for personal consumption by individuals or families. Ask the students to define "price" (the quantity of money which must be exchanged to acquire one unit of a good or service). Explain that the Consumer Price Index is a measure of changes in the prices consumers pay for goods and services.
3. Distribute Handout 8-1.\* This handout contains background relevant to the entire lesson. Have the students read it and answer the questions it contains.
  - a. Look at the chart on the Consumer Price Index (CPI).
    - (1) What can you say about changes in the price level since 1967? (Prices have been rising. They have been increasing faster in more recent years.)
    - (2) What was the percent change in prices from 1967 to 1973? (33 percent.)
    - (3) Look at the change from 1973 to 1980. What was the percent change in prices for that period? (85 percent.)

**NOTE:** Since students will be reading the data from the chart, their answers to the last two questions may be considered correct if they are reasonably close to 33 percent and 85 percent.

\*The parts of this lesson that are contained in handouts 8-1 and 8-2 are somewhat more complex than the rest of the materials in this volume. Some students, therefore, may need greater assistance than usual in order to understand or work through those handouts.

b. "Inflation" is defined as a period of time when the average of all prices—or the general price level—is increasing.

- (1) Were the 1970s a period of inflation? (Yes.) Why? (Because prices were increasing markedly.)
- (2) What has been happening to the general price level during the past twelve months? Has it been stable? Going up? Going down? Fluctuating? (See latest CPI data and/or price information in news, books and periodicals.)

4. Ask: What has been happening to individual prices or categories of prices recently? Which do you believe are increasing fastest or slowest now, i.e., in the period when this lesson is being given? Have students explain their answers, especially if they differ among themselves. Perhaps prices have been influenced by recent special events, e.g., a drop in certain food prices because a drought has ended or a rise in gasoline prices because of a cutback in Mideast oil production. Try to have the class discussion end in agreement. Record students' conclusions on the chalkboard. Then, using the latest CPI information, list on the chalkboard the percent changes for each of the principal categories during a recent period. Compare student perceptions with the CPI figures. If the two are markedly dissimilar, could local conditions have differed from the national ones reflected in the CPI?

5. Put the following information on the chalkboard:

From 1979 to 1980, the principal categories and the total of the CPI *increased* by the following percentages:

Food and beverages	8.5 %
Housing (including fuel costs)	15.7
Apparel and upkeep	7.1
Transportation (private and public, including fuel)	17.8
Medical care	10.9
Entertainment	8.9
Personal care and other	9.0
(Special grouping: All energy costs included in above categories)	30.9
Total CPI	13.5

Ask: Based on what you know or have recently experienced, do you think that prices now are going up as fast as they were from 1979 to 1980?

6. Distribute Handout 8-2. Some students may need help with the calculation required at the end.

**Evaluation:** Assess the class participation of students, their answers to questions, and their work on the handouts.

**Period Three (Same month, third year)**

Item	(1) Average Price per Unit	(2) Quantities Bought	(3) Weighted Expenditures (= col. 1 × col. 2)
Milk (quart)	\$0.65	20 quarts	\$ 13.00
Bread (loaf)	0.60	30 loaves	18.00
Hamburger (pound)	1.50	25 pounds	37.50
		Total food	\$ 168.50

**Questions:**

- a. What is the price index for Period Three? 145.7
- b. Did the price index rise faster in Period Two or in Period Three? Period Two

Give the figures to prove your contention: percent rise in Period Two 26.6

In Period Three 15.1

- c. What is the total percent rise from Period One to Period Three? 45.7

## Handout 8-1

### THE CONSUMER PRICE INDEX

The United States Bureau of Labor Statistics, a division of the U.S. Department of Labor, issues the Consumer Price Index (CPI) every month. The CPI is the most widely used measure of price trends in the individual things consumers buy as well as in all these prices taken together (total consumer prices). Percent changes are computed in order to find out how much prices may have changed from one period to another.

In order to construct the CPI, unit prices are collected for about 400 different goods and services. They fall into eight main categories that together make up the "market basket" for the index:

Food and beverages	Medical care
Housing	Entertainment
Apparel and upkeep	Personal care
Transportation	Other

Prices for the market basket are collected at some 24,000 different retail outlets. Information is obtained elsewhere on the costs of housing and a few other items. The 400-item market basket for which prices are gathered is typical of what and how much consumers buy. Information on what consumers buy is obtained from them at roughly ten-year intervals. The most recent consumer survey covered about 40,000 families.

In order to compute the total Consumer Price Index or to compute indexes for groups of items

(such as for food or for transportation), one must weight every item in the market basket. Weighting is a way of combining the items according to their importance in the average consumer budget, that is, according to how much is spent annually on each item. The exercises in Handout 8-2 show how weighting is carried out.

Consumer prices are presented in the form of an index because that allows us to measure the percent change in consumer prices from some starting point—a point usually called the base. The base for the Consumer Price Index consists of average prices for a year or a group of years. The base for any index is always set at 100.0, and the index shows the changes from that base. If prices go up after the base year, the Consumer Price Index will then be more than 100.0. For example, if prices rise 10 percent, the index will be 110.0. If prices had fallen 5 percent instead, the index would have been 95.0.

Presenting the CPI as an index is useful for a second reason. Consumers buy many different items that are priced in many different ways. For example, meat is priced by the pound, light bulbs by their power, refrigerators by—among other things—their size. By setting these various kinds of prices at 100 in the base year and computing the percent changes from the base, it becomes possible to compare price changes among them.

**Questions:**

The chart below pictures the behavior of the CPI from 1967 to 1980. After examining it, answer the questions that follow

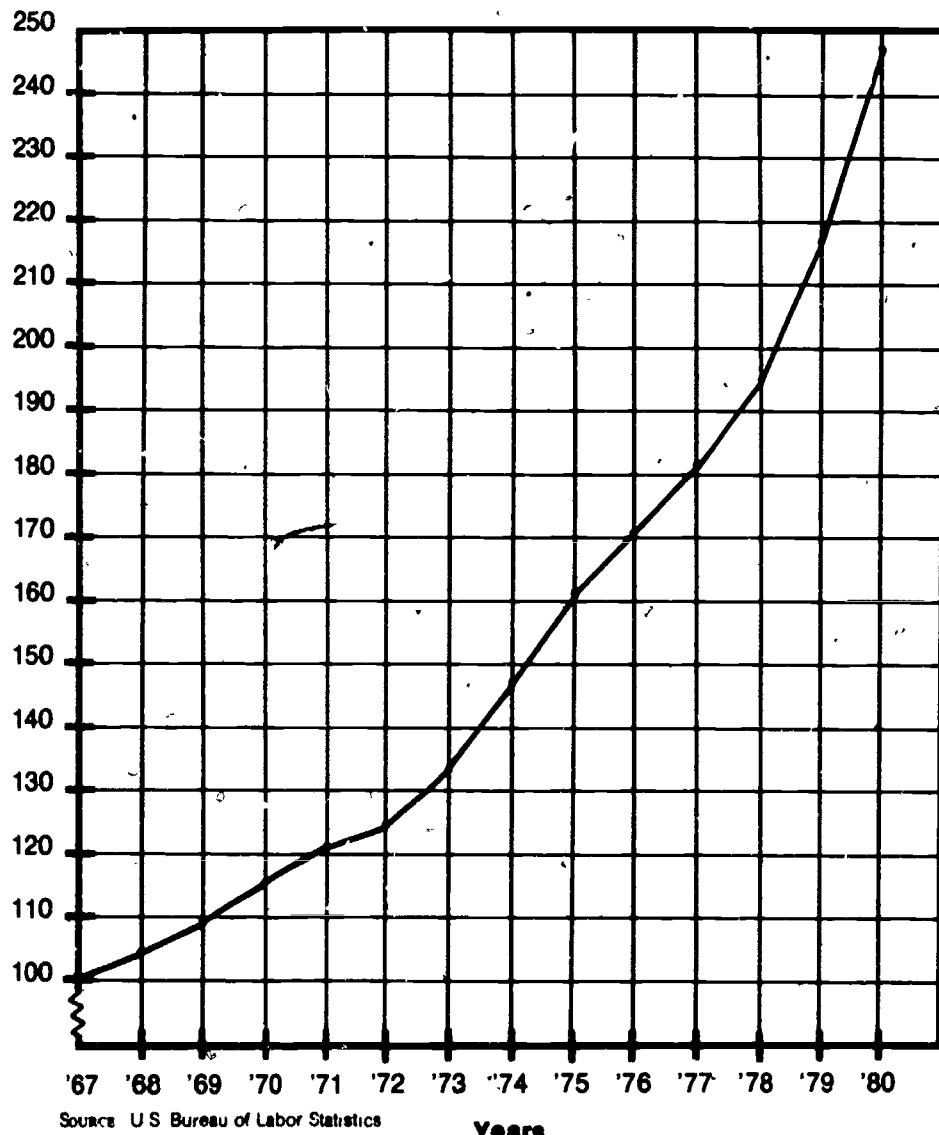
a. - Look at the chart on the Consumer Price Index (CPI).

- (1) What can you say about changes in the price level since 1967?
- (2) What was the percent change in prices from 1967 to 1973?
- (3) Look at the change from 1973 to 1980. What was the percent change in prices for that period?

b. "Inflation" is defined as a period of time when the average of all prices—or the general price level—is increasing.

- 1) Were the 1970s a period of inflation? Why do you think so?
- 2) What has been happening to the general price level during the past twelve months? Has it been stable? Going up? Going down? Fluctuating?

**Consumer Price Index**  
(1967=100)



## Handout 8-2

### COMPUTING A WEIGHTED CONSUMER PRICE INDEX

Name \_\_\_\_\_

Class \_\_\_\_\_

This handout will teach you how to calculate a weighted price index. The Consumer Price Index (CPI) needs to be weighted to accurately reflect the importance of various goods and services in the average consumer budget. Weighting is used in calculations that combine individual items that are of different importance. Some items are purchased more frequently or in greater quantity than others. Therefore, their prices need to be given a greater weight.

In the following exercise, you will calculate a simplified Consumer Price Index and be able to see how weighting is done. The exercise simplifies the CPI calculation in two ways: (1) It covers only a single part of the entire CPI, the food category. (2) The food category in the exercise contains only three items while the actual food category in the CPI covers 75 foods plus the costs of eating out.

The exercise shows the construction of the index for the same month in three successive years. The calculations for the first two periods have been done for you and are explained. After you read

the explanation and examine the calculations for the first two periods, you will calculate the index for the third period.

Look over the examples for the first two months that appear below and the explanation that follows. Note that for each item of food, the Price per Unit given in column 1 is multiplied by the weight (Quantities Bought) in column 2. The results are the Weighted Expenditures shown in column 3.

Look at the numbers for Period One. The first column shows the prices at which a family bought milk, bread, and hamburger purchased in one month. The second column tells how much a family purchased of each item during the month. The figures in the third column result from multiplying the first two columns together. For milk, the family paid 50 cents per quart and bought 20 quarts. Therefore, it spent \$10.00 on milk during the month. Similar calculations are made for bread and hamburger.

The \$47.00 shown in the last column for Period One is the sum of a family's expenditures on the

Item	(1) Average Price per Unit	(2) Quantities Bought	(3) Weighted Expenditures (= col. 1 x col. 2)
<b>Period One (base month, first year)</b>			
Milk (quart)	\$0.50	20 quarts	\$10.00
Bread (loaf)	0.40	30 loaves	12.00
Hamburger (pound)	1.00	25 pounds	25.00
		<b>Total food</b>	<b>\$47.00</b>
<b>Period Two (same month, second year)</b>			
Milk (quart)	\$0.60	20 quarts	\$12.00
Bread (loaf)	0.50	30 loaves	15.00
Hamburger (pound)	1.30	25 pounds	32.50
		<b>Total food</b>	<b>\$59.50</b>

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Handout 8-2 (concluded)

three foods during the month. Since that is the base month for the index being constructed, the expenditures for Period One are set at 100.0.

In Period Two, because prices have risen, the purchase of the same kinds and quantities of food comes to \$59.50. To calculate the price index for Period Two, subtract \$47.00 from \$59.50. (The answer is \$12.50.) Then express \$12.50 as a percent of \$47.00. (Divide 12.50 by 47 and multiply the result by 100.) The answer is 26.6 percent. Expenditures for the same quantity have risen 26.6 percent from

Period One to Period Two. Add the 26.6 percent to the base-period value of 100.0. The result is an index of prices for Period Two of 126.6.

Now comes your turn. Compute the index for Period Three in the same way as just explained for Period Two. That means you will multiply the information in columns 1 and 2 for Period Three and write the results in the third column. Then use the total of the items in the third column to compute the price index for Period Three compared to Period Two as explained in the previous paragraph.

### Period Three (Same month, third year)

Item	(1) Average Price per Unit	(2) Quantities Bought	(3) Weighted Expenditures (= col. 1 x col. 2)
Milk (quart)	\$0.65	20 quarts	\$ _____
Bread (loaf)	0.60	30 loaves	_____
Hamburger (pound)	1.50	25 pounds	_____
Total food			\$ _____

**Directions:** Compute the price index for Period Three in the space below. Write your answers on the line provided in column 3 of the table.

#### Questions:

- What is the price index for Period Three? \_\_\_\_\_
- Did the price index rise faster in Period Two or in Period Three? \_\_\_\_\_

Give the figures to prove your contention: percent rise in Period Two \_\_\_\_\_;  
in Period Three \_\_\_\_\_

- What is the total percent rise from Period One to Period Three? \_\_\_\_\_

## Lesson 9: Using Cartoons To Teach Economics

**TIME REQUIRED:** One class period

**CONCEPT:** Inflation (see Lesson 8)

**Instructional Objectives:** Students will:

- Identify and understand symbols used in cartoons;
- Interpret cartoons by describing the economic concepts they illustrate or suggest.

**Rationale:** Editorial cartoons portray complex issues in comparatively simple drawings. Such cartoons attempt to sharpen or influence the reader's thinking about an issue. This lesson will help students see how economic issues can be presented in cartoons.

**Suggested Use:** Any course dealing with contemporary problems.

**Materials:**

1. Classroom sets of copies of the cartoons reproduced here and/or more up-to-date ones selected by the teacher.
2. Classroom set of copies of Handout 9-1.

**Introduction:**

This lesson and these comments are intended to serve as a guide for the use of editorial cartoons in the classroom. Cartoons may be humorous but they are usually not trivial; their power is not to be laughed at. One can read thousands of lines of print and yet be more affected by a quick glance at a vivid and well-conceived cartoon.

Cartoons are usually drawn to provoke, criticize, comment, or support. Indeed, it is this aggressive intent which makes them an effective teaching device. Since economic difficulties or controversies are often major issues or have a significant impact on public affairs and politics, it is not difficult to find cartoons that deal with economics.

Cartoons can be used effectively in the classroom in many ways, for example, (1) to trigger various points of view; (2) to consider the pros and cons of a controversy; (3) to discover novel relationships to which the cartoon calls attention. Editorial cartoons seek to illuminate current situations and often contain speculations about the future. They thus give students an opportunity to discern a possible bias on the cartoonist's part and to reflect on their own opinions. A single cartoon can summarize days of study—and in addition to all this, teaching cartoons can be a lot of fun! (In teaching with cartoons, you must decide whether your students have enough background to deal with the subject matter or whether new material needs to be introduced during the discussion.)

Use the following questions as aids in selecting editorial cartoons:

1. What is the essential message of the cartoon? Is there more than one?

2. Is the cartoonist's bias apparent?
3. Are the students likely to agree with the statement made by the cartoon? Would any particular group in society be more or less likely to agree with it? Are there likely to be differing responses to the cartoon by different people or in different parts of the country?
4. How does the cartoon relate to local conditions and sentiment?
5. Can the cartoon be reproduced clearly or easily copied for use in an overhead projector?
6. Have you another cartoon that provides a different point of view?
7. Does the cartoon lend itself to detailed analysis by the students?

In sum, keep in mind the following points as guides in classroom discussion of cartoons: (1) Cartoons present the artist's opinion on a controversial topic. Therefore, they tend to be biased. To be sure students are aware of this, discuss the bias with them at length. (2) Cartoons may be open to various interpretations. Any interpretation consistent with the symbolism is acceptable.

**Procedure:**

1. Have students explain the economic concept presented or being commented on.
2. Have students interpret the meaning of the symbols in the cartoon.
3. Discuss the message (or messages) conveyed by the cartoon.
4. What are the students' reactions to the cartoon? Do they all agree? If they agree can they spell out other views on the same subject?
5. Review the economic concept in the cartoon. Explore other issues to which the concept may be related.

**NOTE:** You may extend the lesson by having students bring in editorial cartoons dealing with economic issues and allowing them to explain or discuss them with other students. Handout 10-1 contains a list of symbols commonly used in cartoons which may help students.

Students may even want to draw their own cartoons. First have them describe a controversial economic issue and have them write an explanation of their opinion on the matter. Then have them select appropriate symbols and draw the cartoon. Reassure students that for this exercise it is their ideas, not their artistic abilities, that are important.

Several cartoons dealing with inflation follow. The first two deal with the effects of inflation on the purchasing power of consumers. The second two deal with responses to inflation by government. There are suggested discussion questions to illustrate how these and similar cartoons might be used to start discussion in order to introduce a new topic of study or to reinforce previously studied material.

## Discussion Questions

### Cartoon 1

1. What does the pig represent? (Inflation.)
2. What does inflation mean? (A sustained rise in the average of all prices.)
3. What group of people does the man represent? (Wage and salary earners or workers.)
4. What does the eaten away portion of the paycheck represent? (The buying power of wages that has been lost through inflation.)
5. What does the remaining portion of the paycheck represent? (The buying power left in the wage earners' wages—"real income.")
6. What is the essential message of the cartoon? (Lost buying power reduces the amount of goods and services people can purchase with their income.)
7. Which groups of people are hurt the most by inflation? (Those whose incomes don't rise as fast as prices do, for example, retired people who live on fixed pensions.)
8. Do any groups benefit from inflation? Who benefits? (Debtors, for example, because they repay their debts with an amount of money that has less buying power than when they borrowed it.)

### Cartoon 2

1. What does the bear represent? (Double-digit inflation.) What does the term "double-digit inflation" mean? (An inflation rate of 10 percent or more but less than 100 percent—100 percent would be "triple-digit inflation.")
2. Who or what does the skier represent? (Consumers or consumer income.)
3. Why are the bear and the skier shown racing uphill? (To show a rise in both prices and personal income.)
4. What is the essential message of the cartoon? (Prices are rising faster than personal income. This is symbolized by the bear catching up with the skier.)
5. What does the message mean in terms of the purchasing power of consumers, i.e., the amount of goods and services consumers will be able to buy? (Purchasing power is being reduced.)

### Cartoon 3

1. What does each man represent? (Prices or business; wages or labor.)
2. What is the essential message of the cartoon? (Neither labor nor business is willing to reduce its wage demands or price first. Perhaps each does not trust the other to follow. Both are equally oversized. Alternate interpretations therefore are that both are too big to fit through the door, i.e., to act voluntarily or that both are already bloated from previous large price and wage increases.)
3. Is there any apparent bias in the cartoon? (Both groups are portrayed as equally unwilling to voluntarily restrain themselves. In this sense, the cartoonist is impartial. It is also possible to conclude that the cartoonist probably believes stronger measures are necessary to slow or stop the rise in prices and wages.)
4. What action is the cartoonist implying he would support to force labor and business to work on controlling inflation? (Mandatory price and wage freeze, or placing controls over prices and wages, a policy that is very controversial.)
5. OPTIONAL: Are price and wage freezes or other forms of control effective? (Students can be asked to find out the answer. The general answer is that controls usually break down except under wartime conditions. The last time reasonably full controls were tried in the United States—under President Nixon—the policy failed.)

### Cartoon 4

1. What does the fly represent? (Inflation.) How do you know? (It is labeled.)
2. Why do you think the cartoonist used a fly? (Like inflation, once let loose, flies are difficult to control.)
3. Why is the fly so much bigger than the human? (Inflation is a big problem.)
4. Assuming that the person with the flyswatter represents the government, what is the cartoonist saying? Do you agree? Why? (The government is having a difficult time controlling inflation. Alternate interpretation is that the government is using ineffective methods to control inflation.)
5. Which of these statements do you think represents the cartoonist's opinion? (The second is the correct answer.)
  - a. Inflation is a difficult problem that the government is controlling effectively.
  - b. The government needs to take stronger actions to control inflation.

## Cartoon 1



FISCHER IN OMAHA WORLD HERALD

### **Discussion Questions:**

1. What does the pig represent?
2. What does inflation mean?
3. What group of people does the man represent?
4. What does the eaten away portion of the paycheck represent?
5. What does the remaining portion of the paycheck represent?
6. What is the essential message of the cartoon?
7. Which groups of people are hurt the most by inflation?
8. Do any groups benefit from inflation? Who benefits?

Cartoon, by Ed Fischer, reprinted by kind permission of Omaha World-Herald.

## Cartoon 2

### UPHILL RACER



—Copyright 1980 by Herblock in The Washington Post.

#### Discussion Questions:

1. What does the bear represent?
2. Who or what does the skier represent?
3. Why are the bear and skier shown racing up-hill?
4. What is the essential message of the cartoon?
5. What does this mean in terms of the purchasing power of consumers, i.e., the amount of goods and services consumers will be able to buy?

## Cartoon 3

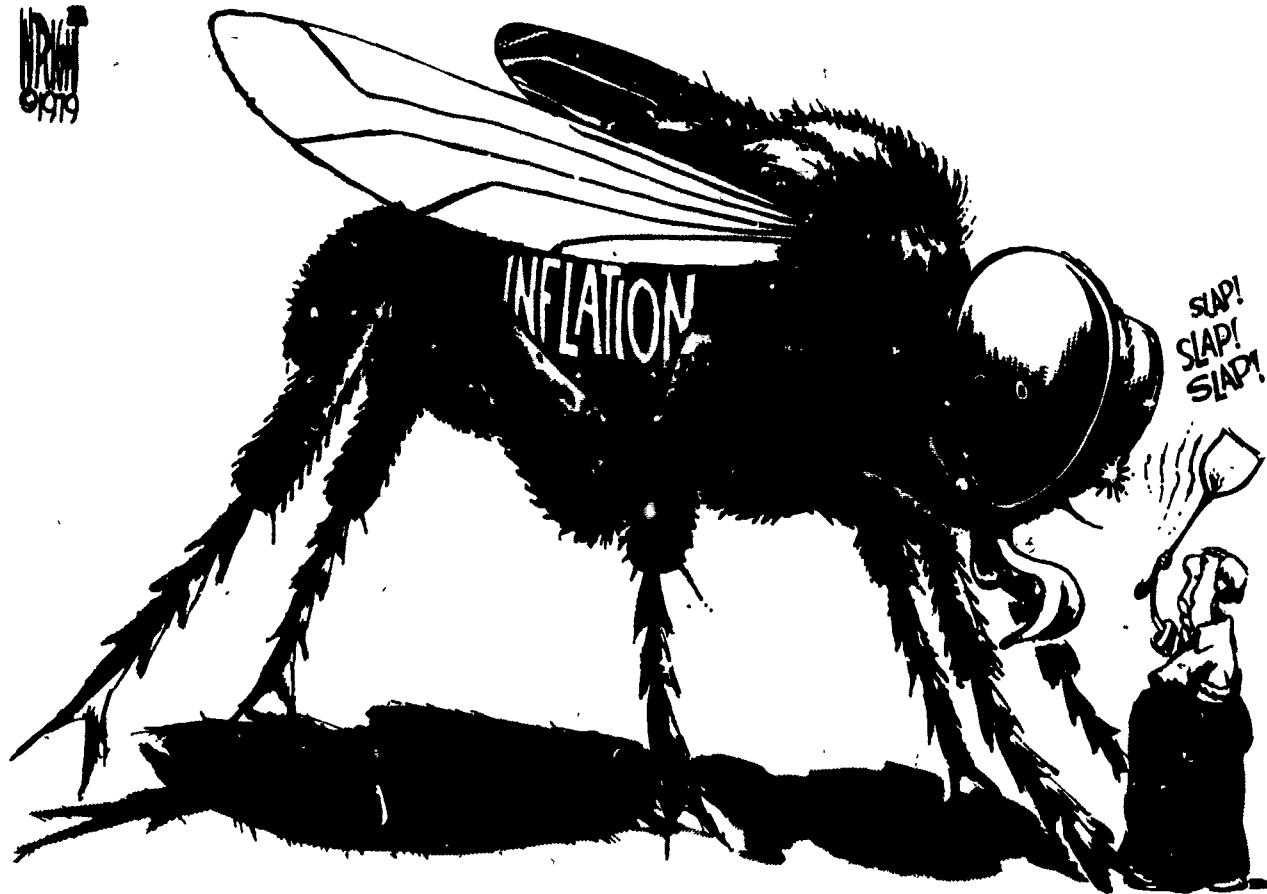


### Discussion Questions:

1. What does each man represent?
2. What is the essential message of the cartoon?
3. Is there any apparent bias in the cartoon?
4. What action is the cartoonist implying he would support to force labor and business to work on controlling inflation?
5. OPTIONAL: Are price and wage freezes or other forms of control effective?

Cartoon, by Tony Auth, reprinted by permission of Mr. Auth and the *Philadelphia Inquirer*.

## Cartoon 4



### Discussion Questions:

1. What does the fly represent? How do you know?
2. Why do you think the cartoonist used a fly?
3. Why is the fly so much bigger than the human?
4. Assuming that the person with the flyswatter represents the government, what is the cartoonist saying? Do you agree? Why?
5. Which of these statements do you think represents the cartoonist's opinion?
  - a. Inflation is a difficult problem that the government is controlling effectively.
  - b. The government needs to take stronger actions to control inflation.

Cartoon, by Don Wright, reprinted by permission of Mr. Wright and the Miami News.

## Handout 9-1

### COMMON EDITORIAL CARTOON SYMBOLS

<b>SYMBOL</b>	<b>USUAL MEANING</b>
Bear	Soviet Union Falling stock market prices
Bull	Rising stock market prices
Buzzards	Death or something undesirable or menacing
Dove	Peace
Eagle	United States
Empty bowl	Shortage, scarcity
Fat person	Selfishness, overuse
Globe	World
Hammer and sickle	Communism, Soviet Union
John Q. Public	Average person
Oil pipe or oil barrel	Energy problem
Pig	Selfishness, greediness
Snail or turtle	Something slow
Uncle Sam	United States

**NOTE:** If cartoon symbols have an unusual meaning or are used in an unusual way, the cartoonist will include some explanation in the cartoon.

# Lesson 10: Economic Growth

**TIME REQUIRED:** Two or three class periods

**MAJOR CONCEPTS:** Economic growth  
Gross national product (GNP)  
GNP per capita  
Productivity

**RELATED CONCEPTS:** Productive resources  
Index numbers  
Charts and tables  
Percent change

**Instructional Objectives:** Students will

- Define gross national product;
- Explain how per capita GNP is related to economic growth;
- Define productivity;
- Explain the relation between increasing productivity and economic growth.

**Rationale:** One important measure of economic growth is the extent of increase in the total production—gross national product (GNP)—of an economy over a protracted period. An even more important measure is the extent of increase in GNP after it is divided by the total population of the country in each year. If a country's GNP per person (per capita) is increasing, it indicates that the standard of living is rising and that the population is thus benefiting from economic growth.

**Suggested Use:** This lesson can be used in any course to which the topic of economic growth is relevant or to which the industrialization of and modernization of economies is relevant.

**Materials:** Classroom set of copies of handouts 10-1, 10-2, and 10-3.

**Procedure:**

## DAY ONE

Distribute copies of Handout 10-1. Allow time for students to read the explanation as well as to ask questions—students may need help in understanding the description of gross national product. Then have students graph *total* GNP, 1945-80, on the chart provided, using the data in the table included with the handout. Finally, have the students answer the questions in the handout, which are based on the data, the chart, and the reading.

- a. Was there an increase or decrease in total GNP, measured in 1972 prices, from 1945 to 1980? (Increase.)
- b. What was the percent change? (165 percent.)
- c. Has the increase in total GNP been steady? (No.)
- d. How many years of decline were there in total GNP from 1945 to 1980? (Nine.)

- e. What does "per capita GNP" mean? (The amount of GNP per person.)
- f. Did per capita GNP increase or decrease from 1945 to 1980? (Increase.)
- g. What was the percent change between 1945 and 1980? (66 percent.)
- h. Did per capita GNP increase more or less than total GNP from 1945 to 1980? (Less.)
- i. Why did per capita GNP and total GNP not grow by the same percent? (Because the total population as well as the total GNP had been increasing. Therefore, GNP per capita grew less than total GNP.)
- j. What does the increase in per capita GNP from 1945 to 1980 mean? (Economic growth had taken place.)

**NOTE:** Teachers who want more background on GNP should find it in most economics textbooks.

## DAY TWO

*The following information will be helpful in answering questions students may have about Handout 10-2.*

Many factors contribute to economic growth. Some important ones are:

- An increase in the supply of labor as population increases or because a larger share of the population becomes able or willing to go to work;
- An increase in education or other training that increases the skill of the labor force;
- Advances in knowledge that result in better organization for the production of existing products or the production of improved or new products;
- An increase in the amount of machinery, buildings, vehicles, and other equipment (the things economists call "capital goods") used for production;
- The introduction of improved or new types of capital goods.

The last four factors mentioned are sources of economic growth because they contribute to increases in productivity. Productivity refers to the efficiency with which economic resources are used.

The most common measure of productivity is in terms of labor, and that is the one used in Handout 10-2. In that measure, the quantity of output in one period of time is divided by the amount of labor needed to produce that output. The result is the ratio of output to the amount of labor expended. In order to assess the *trend* of productivity, a similar computation is made for a later period. If productivity has risen, the ratio for the second period, i.e., the amount of output per worker, will be larger.

While such computations on the surface appear to attribute the entire increase in productivity to the greater efforts or the greater skills of workers, that is

usually only partly the case. The workers may be using new or improved machinery, management may have organized the work more efficiently (e.g., put in an assembly line), a new technology may have been adopted (e.g., electronic circuits substituted for vacuum tubes), etc.

The diagram in the handout shows how the productivity of labor increased as new inventions and machines were introduced that made production more and more efficient. Each new machine helped cause the output of cloth per worker (productivity) to grow. Other contributions arising from increases in workers' skills and other factors are not taken into account explicitly.

1. Distribute copies of Handout 10-2. Have students read the handout. Divide class into groups of three to five students each. Have them complete the table and answer the questions on the handout.

- a. What is "productivity"? (A measure of the efficiency with which goods and services are produced in a specific amount of time.)
- b. Why is a rise in productivity desirable? (It permits more goods and services to be made from

available resources, thus contributing to economic growth.)

- c. What was the average output per worker, i.e., worker productivity in 1700? (Half a roll of cloth per worker.) In 1805? (30 rolls of cloth per worker.)
- d. Why did average output per worker increase so much from 1700 to 1805? (The invention of new or improved machines; increases in the skills of workers.)
- e. Why is economic growth important? (It is the source of rises in the standard of living.)

2. Discuss the answers to the questions with students.

**Evaluation:**

1. Assess quality of student written and oral responses.
2. Have the students take the ten-question true-false test (Handout 10-3). The correct answers are:
 

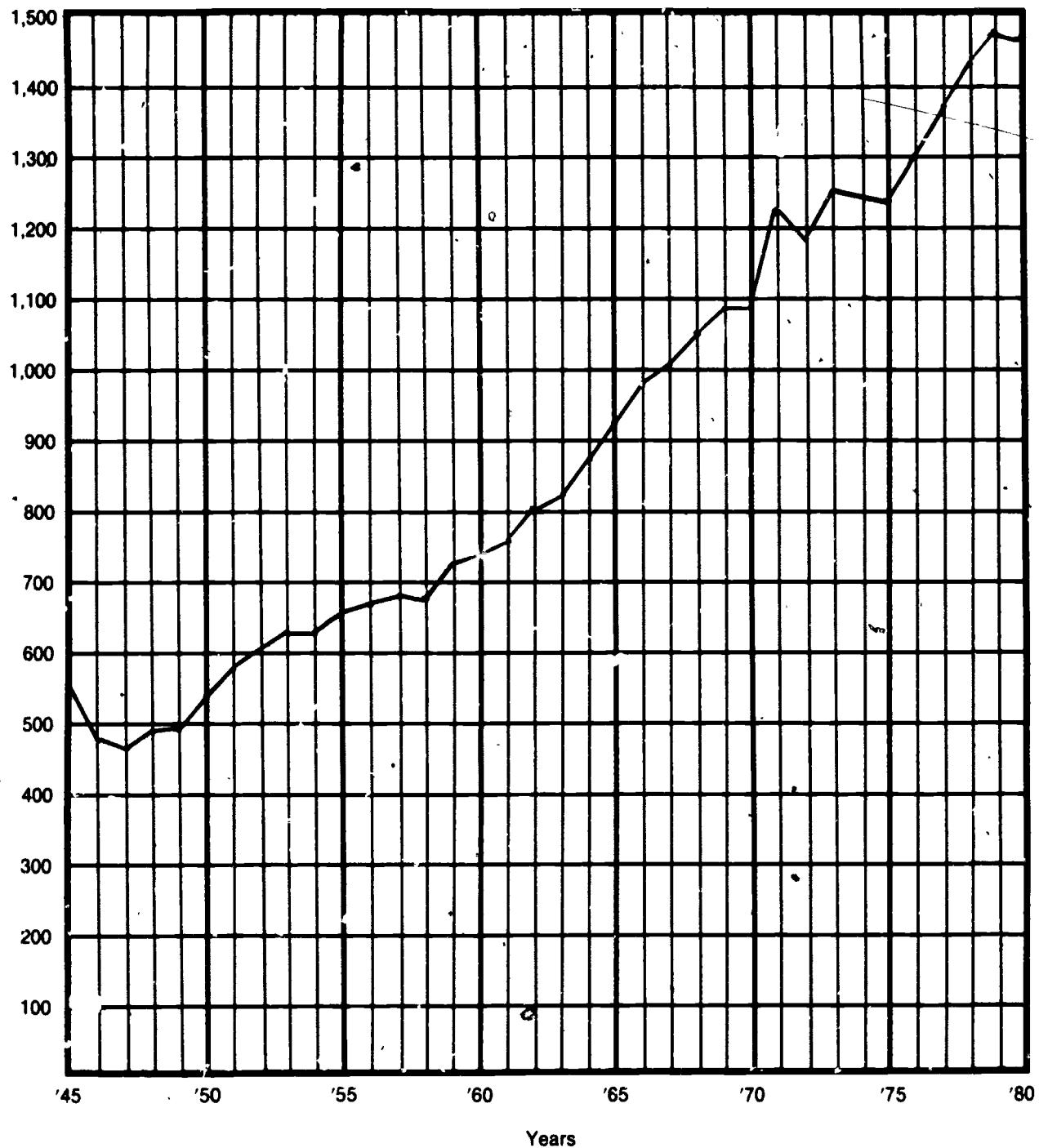
1. T	4. F	8. T
2. F	5. T	9. F
3. F	6. T	10. T
	7. T	

Year	No. of Spinners	No. of Weavers	Total No. of Workers	No. of Rolls of Cloth	Productivity (average output per worker)*
1700	1	1	2	1	.50 roll
1733	4	1	5	4	.80 roll
1764	1	8	9	20	2.22 rolls
1769	1	12	13	30	2.31 rolls
1779	1	14	15	50	3.33 rolls
1805	1	1	2	60	30.00 rolls

\*To compute the average output per worker, divide the number of rolls of cloth by the total number of workers.

**Total Gross National Product**

Billions of 1972 dollars



# Handout 10-1

## GROSS NATIONAL PRODUCT

Just as people are concerned about their physical health, nations are concerned about their economic health. One of the best ways to determine a nation's economic health is to study the growth of its gross national product (GNP), that is, its total yearly output of goods and services. GNP for the United States in 1980 was \$2.6 trillion.

GNP includes only final products, such as shoes and automobiles. The leather and the fabric sold to shoe manufacturers or the metal and the completed parts sold to auto manufacturers are not counted. Such "intermediate goods" are included in the price of the finished product finally sold in the market. In the case of shoes, for example, the procedure avoids the error of counting the leather twice, as leather and as shoes.

GNP is expressed in dollars. By using the dollar value of goods and services produced, it is possible to easily add together the output of the many different goods and services produced. However, using the money value of goods and services presents problems. Prices, of course, can change—up or

down—from one period to another. GNP could increase or decrease due to price changes, without a similar change in production. Since it is the measure of production that is desired, the GNP must be corrected for price changes. When price effects are removed, the GNP is said to be expressed in "constant prices," (or "constant dollars") and it is called "real" GNP.

A rising "real" GNP means that the total production of the economy is increasing. Yet, people may still not be much better off. If the population of a country increases, the rise can partially or totally offset the growth in GNP. To determine what is happening to the level of production per person, or "per capita," the real GNP must be divided by the nation's population. The trend of real per capita GNP will tell whether production has increased faster than population. If it has, economic growth has taken place.

The table which follows expresses GNP data in constant dollars using 1972 prices. Look at the table and then answer the questions that follow.

**U.S. GROSS NATIONAL PRODUCT (GNP)  
(1972 Prices)**

Year	Total (mil- lions)	Per Capita	Year	Total (mil- lions)	Per Capita	Year	Total (mil- lions)	Per Capita
1945	\$560	\$4,005	1957	\$684	\$3,992	1969	\$1,088	\$5,365
1946	478	3,383	1958	681	3,910	1970	1,086	5,298
1947	470	3,263	1959	722	4,057	1971	1,222	5,420
1948	490	3,340	1960	737	4,079	1972	1,186	5,678
1949	492	3,299	1961	757	4,118	1973	1,255	5,964
1950	535	3,526	1962	800	4,289	1974	1,248	5,888
1951	579	3,755	1963	833	4,398	1975	1,234	5,777
1952	601	3,828	1964	876	4,556	1976	1,300	6,043
1953	624	3,908	1965	929	4,782	1977	1,372	6,323
1954	616	3,794	1966	985	5,009	1978	1,437	6,569
1955	658	3,978	1967	1,011	5,089	1979	1,483	6,721
1956	672	3,992	1968	1,058	5,271	1980	1,481	6,645

SOURCE: U.S. Department of Commerce: Bureau of Economic Analysis, Bureau of the Census.

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

### **Handout 10-1 (continued)**

## Questions:

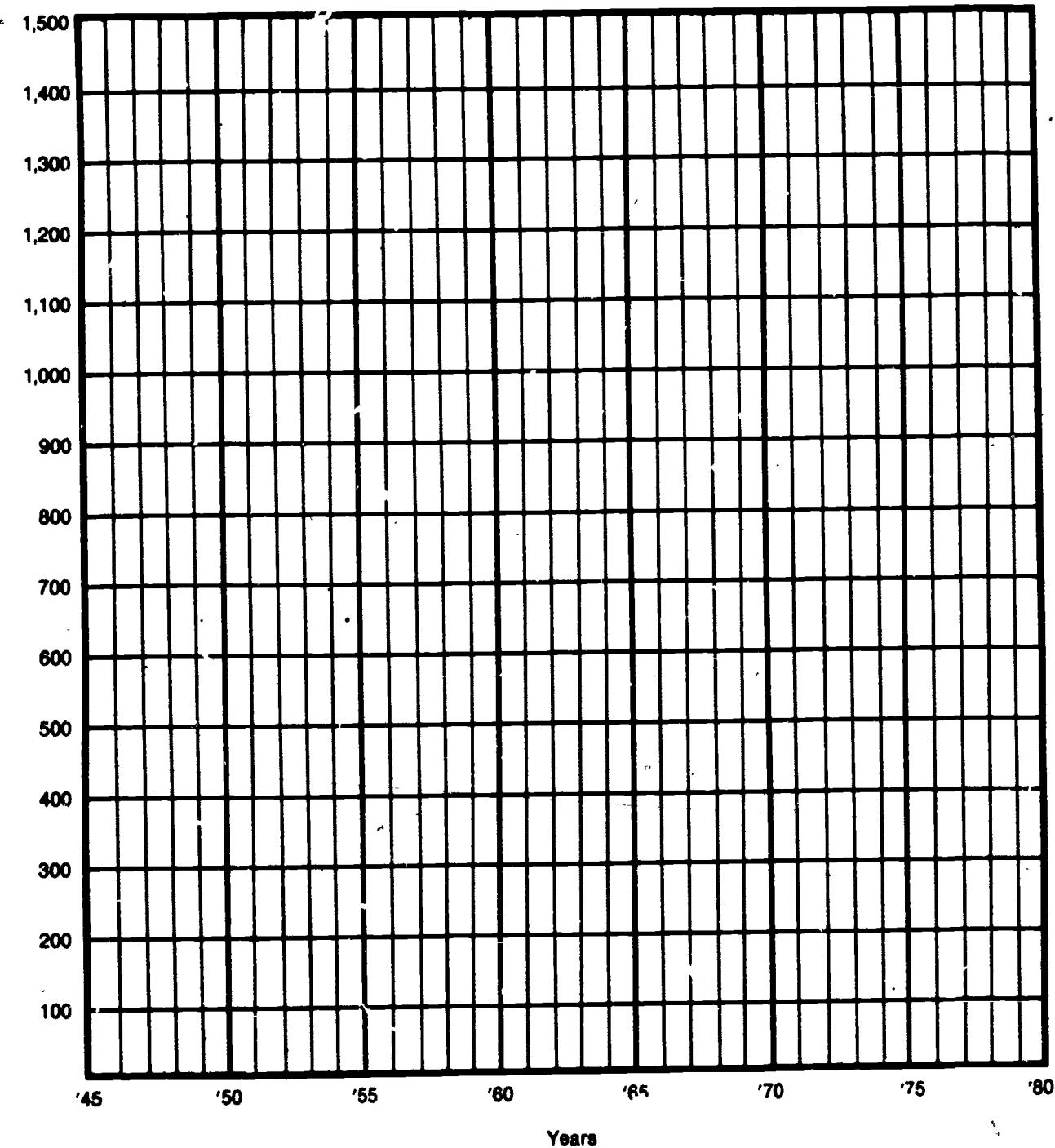
- a. Was there an increase or decrease in total GNP, measured in 1972 prices, from 1945 to 1980?
- b. What was the percent change?
- c. Has the change in total GNP been steady?
- d. How many years of decline were there in total GNP?
- e. What does "per capita GNP" mean?
- f. Did per capita GNP increase or decrease from 1945 to 1980?
- g. What was the percent change between 1945 and 1980?
- h. Did per capita GNP increase more or less than total GNP from 1945 to 1980?
- i. Why did per capita GNP and total GNP not grow by the same percent?
- j. What does the increase in per capita GNP from 1945 to 1980 mean?

**Answers / Notes:**

## Handout 10-1 (concluded)

### Total Gross National Product

Billions of 1972 dollars



From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Handout 10-2

### PRODUCTIVITY

Name \_\_\_\_\_

Class \_\_\_\_\_

The term "productivity" refers to the efficiency with which goods and services are produced. If the same number of workers or machines can produce more this year than last year, then productivity has increased. One source of increased productivity is a better organization of the flow of work. Another source of increased productivity is an improvement in skills of the workers. A third source is the use of new or improved machines.

The introduction of new or improved machines is made possible through the process of saving and investment. If you put aside money instead of spending it for something that is consumed (used up) almost immediately, you have saved. The money not spent on consuming can be used to buy improved or additional machinery or buildings or trucks, etc. The purchase of such items is called investment.

When a business makes new investments it is often able to do so because it has "saved" some of its profits. In addition, it often receives the savings of others when they buy shares of its stock or loan money to it. Sometimes stock purchases or loans are made indirectly through the pension funds, the insurance companies, or the banks in which savings have been placed.

Saving and investment are very important to society. The greater the investment, the more productivity tends to increase over the long run. Increased productivity is crucial to achieving economic growth, and economic growth brings a rising standard of living. A rising standard of living is made possible when the average person or family receives an increasing amount of income with which to buy more goods and services.

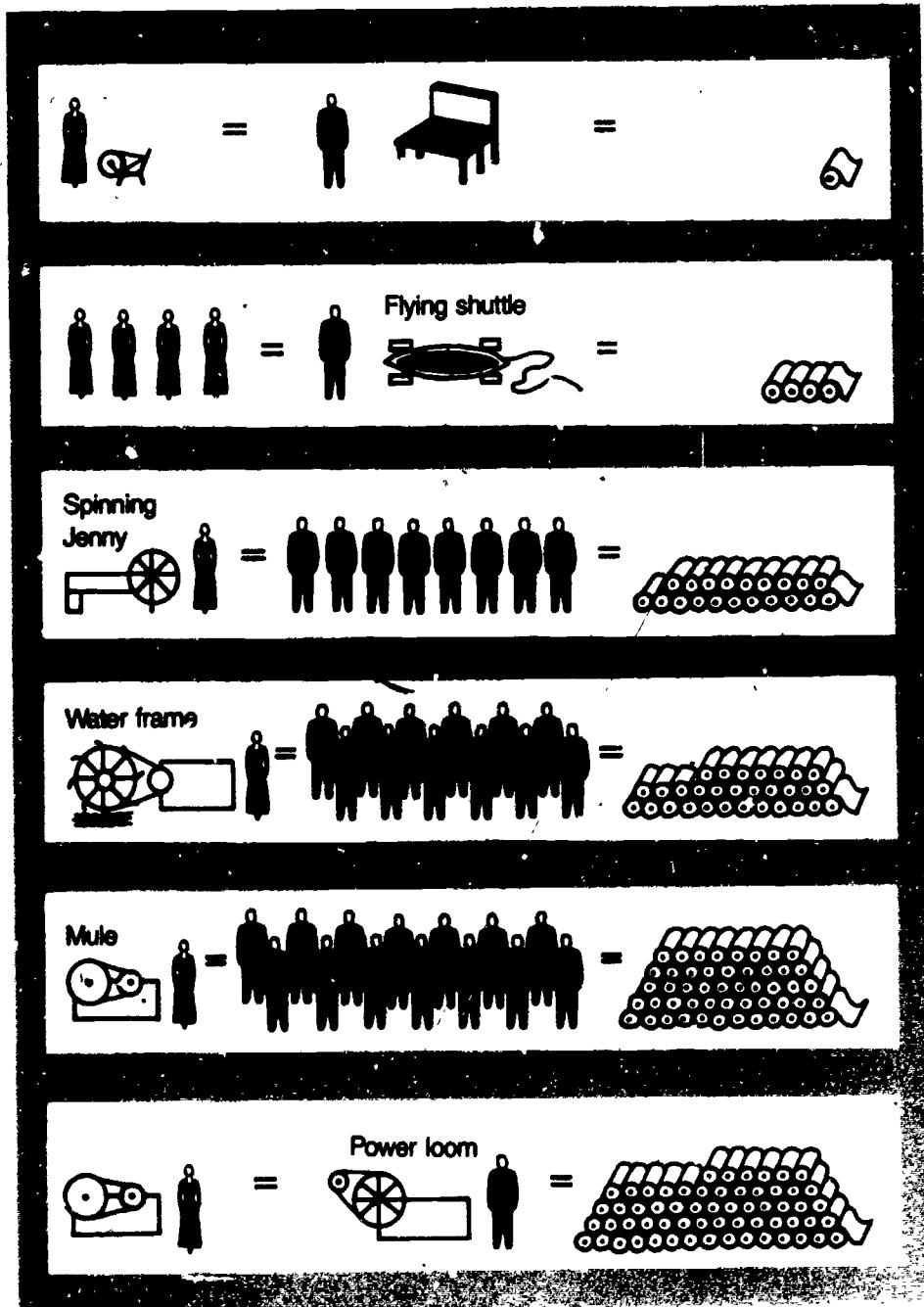
Figure 10-1 illustrates how productivity in the making of cloth increased during a period of about 100 years. You will be asked to make calculations based on the information in the diagram. They will show a rise in the productivity of labor. That is, the average worker produced more as the years went on. The improved abilities and skills of workers no doubt contributed to the rise in labor productivity. In addition, as the diagram makes clear, a good part of the improved productivity must have also been due to the introduction of new types of machinery as a result of new investment.

Increases in productivity have played a role in the production history of virtually all goods and services. Diagrams similar to the one shown here for cloth could be devised for most other products.

## Figure 10-1

### INCREASES IN PRODUCTIVITY IN MAKING CLOTH

 = 1 Spinner    = 1 Weaver    = 1 roll of cloth



From *Our Economy, How It Works* by Elmer U. Clawson, p. 83; © 1980; reprinted with permission of Addison-Wesley Publishing Company, Menlo Park, California.

## **Handout 10-2 (concluded)**

Name \_\_\_\_\_

## Class

**Directions:**

Using the information in Figure 10-1, complete the table and answer the questions.

Year	No. of Spinners	No. of Weavers	Total No. of Workers	No. of Rolls of Cloth	Productivity (average output per worker*)
1700					
1733					
1764					
1769					
1779					
1805					

\*To compute the average output per worker, divide the number of rolls of cloth by the total number of workers.

### Questions:

- a. What is "productivity"?
- b. Why is a rise in productivity desirable?
- c. What was the average output per worker, i.e., worker productivity, in 1700? In 1805?
- d. Why did average output per worker increase so much from 1700 to 1805?
- e. Why is economic growth important?

### Answers / Notes:

## **Handout 10-3**

## ECONOMIC GROWTH TEST

Name \_\_\_\_\_

## Class

Place check mark in "True" column if the statement is true. Check "False" if any part of the statement is false.

1. Gross national product is the sum of the goods and services produced in a given period.
2. "Per capita" means the amount of goods produced in the capitals of each state.
3. The GNP has always grown in the United States.
4. The per capita GNP has always grown in the United States.
5. The productivity of labor means the amount of goods and services produced by one worker within a specific amount of time.
6. Increases in productivity are desirable. They permit more goods and services to be made from available resources.
7. Increases in productivity contribute to economic growth.
8. Increased productivity can be brought about by the use of more efficient machines.
9. A growing population results in a rise in the standard of living.
10. The standard of living in the United States has increased considerably since 1945.

# The Story of Shoes

## An Economics Unit

Teachers may want to devote an entire unit to economics instruction. The use of such a unit allows teachers to present important economic concepts in a more organized and thorough manner. Lessons can be designed that build upon one another and that show relationships more completely.

One effective way to construct an economics unit for junior high school students is around a case study of the production of a commonly used product. Such a construction offers several advantages. It provides opportunities for students to examine issues, develop hypotheses, and formulate conclusions. In addition, it furnishes concrete examples of economic concepts and economic decision-making rather than abstractions. The ability to think abstractly is usually not fully developed in junior high school students. Therefore, it is good teaching strategy to lead them to derive concepts by generalizing from specific examples and events. Furthermore, field trips and guest speakers fit naturally into case study units and add an element of reality to materials covered in a social studies program. These activities also increase student understanding of the local economy and provide an opportunity to foster closer ties between the school and the community.

"The Story of Shoes" is a case study of the U.S. shoe industry that concentrates on the sector that produces leather shoes. The study is an example of a self-contained economics unit that can be used as presented or as a basis for local curriculum development (see the list of guidelines, below).

The unit takes approximately two weeks to complete. Its eight lessons contain reading material and activities, and teachers should feel free to adapt them to the needs of their students. Teachers can monitor student learning by evaluating the quality of student performance during the class discussions and activities. In addition, two complete tests (forms A and B)

have been included; they appear after the last lesson. The Answer Key for Tests lists the correct answers to the tests and the relationship between questions and lessons. The two tests can be used in a variety of ways, for example, one form may be used as a pretest and the other as a post-test; one form can be given as a homework assignment and the other as a test for the entire unit; one form can be held in reserve for students who were absent.

If this case study is used as a model for local curriculum development, then the following points should be used as a guide.

1. Select a product or service produced in your community.
2. Determine which economic concepts can be taught by studying the product or service. (This is the most important step in the process.)
3. What want or need does the good or service satisfy?
4. Who started the business and when?
5. What mixture of productive resources—land and raw materials, labor, and capital—is needed to produce the good or service?
6. Explain the production process used:
  - a. Provide a short history of how the need or want was met earlier and how it is met now;
  - b. Describe the nature of the industry;
  - c. Describe the history of labor in the industry and the training and skills needed by the people working in it;
  - d. Describe new trends developing in the industry or that affect it from outside.
7. Describe the finished good or service.
8. Is the good or service sold only in your community or in other parts of the United States or of the world as well?

Based on Ronald A. Banaszak and Elmer U. Clawson. *The Story of Shoes* (Stockton, Calif.: Center for the Development of Economic Education, 1979).

## Lesson S1: Introduction to Shoes

**TIME REQUIRED:** One class period

**MAJOR CONCEPTS:** Productive resources  
Economic wants

**Instructional Objectives:** Students will

- Define economic wants;
- Define productive resources;
- List the productive resources used in the making of shoes;
- Describe what working in a shoe factory is like;
- List skills needed by leather workers;
- Explain the relationship of skilled workers to shoe-making machines.

**Rationale:** To introduce the case study. To make students aware of the skill and workmanship involved in making shoes.

**Materials:** Classroom set of copies of Handout S1-1.

**Procedure:**

1. Ask:
  - a. Do you own any leather shoes?
  - b. How many people in the class are wearing leather shoes now?
  - c. What materials other than leather are used to make shoes?
2. Distribute Handout S1-1 and have students read it.

3. Conduct class discussion using the following questions as a guide:
  - a. What are wants? (Human needs for goods and services.)
  - b. What are productive resources? (The things needed to produce goods and services.)
  - c. Place the column headings "human," "natural," and "capital" on the board. Then ask the students to list the productive resources used in making shoes. List each resource in the proper column. (Human: workers and their skills; natural: leather; capital: machines, factories.)
  - d. What skills are needed by Rene Melanson and the other workers? (Hand-eye coordination, judgment.)
  - e. Why are skilled workers needed when over 300 different machines are used in shoe-making? (Because the processes are not automatic, the machines cannot provide the experience and make the decisions needed.)
  - f. Have you ever been in a factory? Do you know someone who works in one? If so, what do the workers (or does the person) do? What is made in the factory?

**Evaluation:** Assess quality of student contributions to class discussion and responses to questions.

## Handout S1-1

### THE STORY OF SHOES

#### Resources Used to Make Shoes

It's 7:00 A.M. at a shoemaking plant in Nashua, New Hampshire, where leather shoes are made. A loud buzzer sounds. Two hundred workers and their clicking, thumping, thudding, hissing, chirping machines spring into action. The pleasant smell of new leather spreads through the one-story building.

A team of fifteen men and women starts the shoemaking process. The fifteen workers are leather cutters. Typical of them is Rene Melanson. On a cutting table before him, Mr. Melanson spreads a piece of leather the size of a small blanket. His trained eye carefully moves across the piece of leather. To him, in his forty-ninth year as a cutter, the sheet of leather reads like a map. On it he can see the history of the animal. There is a brand that marked the cow as belonging to a particular ranch. Here is a scratch from a barbed wire fence. Over there are some strange little round holes—a place where grubs had attacked the cow. Here is a cut from the slaughterhouse, made when the hide was taken off the animal. All these are defects. They cannot go into a quality leather shoe.

Rene Melanson carefully avoids damaged parts as he positions a sharp-edged cutting die over the hide. The cutting die is something like a cookie cutter. He quickly grasps the handle of the cutting press and swings it over the die. He pushes a button. Thud! The cutter comes down, then up it goes again, having cut out a piece of leather that will become part of a shoe. Safety devices prevent Mr. Melanson from accidentally cutting off his fingers. Since he already has the cutting plan in mind, he moves the die quickly to another location. He swings the press, pushes the button, and cuts another piece.

Rene Melanson's experienced judgment determines whether the parts he cuts for each pair of shoes will match in color, texture, and thickness. It can take him as long as twenty minutes to cut a single piece of the hide. As much as 50 percent of the hide may be thrown away because of flaws. With cowhide now costing more than \$2.30 a square foot and calfskin almost twice as much, Mr. Melanson

has a tremendous responsibility. It takes at least two years of training before a person is qualified to be a cutter.

Mr. Melanson's skill with his hands and eyes and the skills of many other men and women in this factory are what set apart shoemakers from production workers in many other industries. More people are involved in making each finished product in shoe manufacturing than in most other manufacturing industries. True, the shoemakers work with machines. But the machines they operate—and there are about three hundred different ones in shoemaking—are really extensions of their skillful hands, trained eyes, and minds. In shoemaking it's the skilled workers who are the backbone of the manufacturing process. Their cooperation is the key to success.

To sum up, before shoes can be bought, they must be produced. For this to occur, *productive resources* are necessary. Human, natural, and capital resources are the three basic types. Human resources are people and their physical and mental abilities. Natural resources are the gifts of nature used to produce goods and services. They include land, water, fossil fuels (oil, coal), mineral deposits, the fertility of the soil, climates suitable for farming, and so on. Capital goods are things created by people to produce goods and services. Machines, tools, and factories are all capital goods.

In the story of shoes you will see how human, natural, and capital resources are used to produce a product to satisfy a want.

#### Economic Wants

Satisfying people's wants for goods and services is the purpose of economic activity. When people buy shoes, they are satisfying an economic want. One must give something up in order to satisfy an economic want. Some wants may appear to be satisfied without cost, such as public education. In fact, they are paid for by someone other than those who receive the service or product. For example, public education is paid for by the taxpayers.

## Lesson S2: The Shoe Industry

**TIME REQUIRED:** One or two class periods

**MAJOR CONCEPTS:** Voluntary exchange  
Supply and demand  
Markets  
Competition  
Imports

**RELATED CONCEPTS:** Tariffs  
Charts and tables

**Instructional Objectives:** Students will

- Give reasons why sales of imported shoes have been increasing;
- Describe some effects on the U.S. market of the success of competition from imports;
- Explain how changing consumer tastes can affect sales;
- State some benefits to consumers of foreign trade;
- Develop a hypothesis about the relationship of foreign shoe competition to problems of the U.S. shoe industry.

**Rationale:** Provides the background necessary to understand the current problems the U.S. shoe industry faces.

**Materials:** Classroom set of copies of Handout S2-1.

**Procedure:**

1. Distribute Handout S2-1 to each student. Allow time for students to read the text.
2. Conduct a brief discussion using the following questions as a guide:
  - a. Why has the U.S. shoe industry been in trouble?
  - b. What effects has competition from imported shoes had on employment and the number of factories in the U.S. shoe industry?
3. Have students study the tables in Activity I in the handout and conduct class discussion using questions about the tables:
  - a. What percent of the U.S. shoe supply in 1969, 1974, and 1979 came from foreign countries? (1969, 26.0 percent; 1974, 37.2 percent; 1979, 51.1 percent.)
  - b. What was the percent rise in the quantity of shoe imports from 1969 to 1979? (100.3 percent.)
  - c. Which five countries shipped the most shoes

to the United States in 1969? In 1974? In 1979? (See table.)

} d. What percent of U.S. shoe imports was supplied by the five leading sources in 1969? In 1974? In 1979? (1969, 88.4 percent; 1974, 81.2 percent; 1979, 75.3 percent.)

e. What conclusion can you draw from the answers to the previous question? (As time passed, the five leading sources of foreign shoes in any given year found increasing competition in the U.S. market from still other countries.)

4. Conduct class discussion using the following questions:
  - a. What has made it possible for foreign shoe manufacturers to sell their shoes for less than shoes made in the United States? (Productivity in the U.S. industry is not great enough to offset higher U.S. wages; imports may use less expensive materials than domestic shoes.)
  - b. What is a tariff? (A tax on imports.) How does it help make up for lower costs of foreign goods? (It raises their prices.)
  - c. How has style affected shoe sales? (Consumer tastes have tended to favor foreign-made products.)
  - d. How have consumers benefited from the importing of shoes? (Received lower prices; new styles; competition has caused U.S. companies to innovate, etc.)

5. Divide students into groups of three to five and have them carry out Activity II. The entire class should then discuss the conclusions students reached in their small groups.

6. OPTIONAL: Assign Activity III. Allow a few days for students to complete the assignment:

Adidas	Birkenstock
(West Germany)	(West Germany)
Puma (Yugoslavia)	Freeman (United States)
Dr. Scholl	Jox (United States)
(United States)	
Hush Puppies	
(United States)	

**Evaluation:** Assess the quality of student contributions to class discussions. Assess the quality of student work associated with the activities in the handout.

## Handout S2-1

### THE SHOE INDUSTRY

The shoe industry is made up of many companies. Some companies make shoes; others only sell them; some do both. Some are quite small and others are very large. In 1978, the Brown Group had shoe sales of \$693 million while the Morton Shoe Companies, Inc., had sales of less than \$87 million. An example of a company that sells shoes to the public as well as makes them is the Melville Corporation. Its J. F. McElwain division produces shoes, and its Thom McAn division sells them in its stores.

In recent years the U.S. shoe industry has been having problems. It suffered a rapid decline in sales until 1977 but has since risen to the challenge of foreign competition. Nevertheless, *imported shoes*,

those made in another country and sold in the United States, have taken an important share of the U.S. market.

The rise in imports points to an important feature of our economy—*voluntary exchange*. Voluntary exchange is the process by which people, of their own free will, trade. Usually trade takes place through the use of money, for example, by exchanging money for shoes. Many people in recent years have decided to buy imported shoes. As a result, sales of shoes made by United States companies were reduced.

The growth of U.S. shoe imports was rapid. The tables included with Activity I show the situation.

#### Activity I

Study the data.\* Then answer the questions.

#### Major Sources of Imported Shoes (millions of pairs, nonrubber)

	1969	1974	1979
Taiwan	25.9	88.3	124.1
Italy	61.1	62.6	97.1
Brazil	†	21.3	32.1
Spain	20.7	35.0	27.3
South Korea	†	9.2	24.4
Japan	66.6	†	†
Hong Kong	4.3	†	†

†Not among the five leading sources in the given year

#### U.S. Imports of Shoes (nonrubber)

Year	Pairs (in millions)	Percent of U.S. Market
1969	202.0	26.0
1970	241.8	30.1
1971	268.6	33.5
1972	296.7	36.1
1973	307.5	38.7
1974	266.4	37.2
1975	286.4	41.2
1976	370.0	47.0
1977	368.1	47.1
1978	373.5	47.6
1979	404.6	51.1

#### Questions:

- What percent of the U.S. shoe supply in 1969, 1974, and 1979 came from foreign countries?
- What was the percent rise in the quantity of shoe imports from 1969 to 1979?
- Which five countries shipped the most

\*Compiled from official statistics of the U.S. Department of Commerce.

- shoes to the United States in 1969? In 1974? In 1979?
- What percent of U.S. shoe imports was supplied by the five leading sources in 1969? In 1974? In 1979?
- What conclusion can you draw from the answers to the previous question?

## Handout S2-1 (concluded)

As a result of foreign competition and the loss of sales, many United States companies were put out of business. In 1968 there were about 600 shoe-making companies in the United States, but by 1977 the number had dropped roughly 40 percent to about 380 companies. About 70,000 workers in the industry became unemployed during this period.

What conditions have led to this decline in the shoe industry? There are several, and because the issues are complex, there are differences of opinion about the reasons for the decline.

U.S. shoemaking companies argue that the high wages of American shoe workers cause American-made shoes to be more expensive than foreign shoes. U.S. shoe workers earn \$5.00 per hour and more. That is ten times more than the typical shoemaker in Korea and Taiwan, who earns only about 50¢ per hour! American shoe workers are not ten times more skilled than foreign workers, nor is the machinery they use a great deal more efficient. If

### ACTIVITY II.

As a consumer in a market economy, you can choose what shoes you buy. Your choice helps determine the kinds of shoes that are produced.

The following three factors may determine the demand for shoes. Which is the most important to you?

1. Style or fashion
2. Price
3. Store in which shoes are sold
4. Other factors (comfort, colors, brand, type of use, etc.)

What new styles of shoes have been popular in the last few years? What styles are now becoming popular?

worker skills and the machines used in the United States were in fact enormously more efficient than those abroad, the effect of the difference in wages would be greatly narrowed or even erased.\*

While the higher wages of American labor are a problem, there are other factors behind the decline of the U.S. shoe industry. Probably the most important cause of the shoe industry's problems was its

\*The United States tries to offset the effect of much higher wages here by imposing a tariff—in effect, a tax—on imported shoes. Although the tariff raises the price of imported shoes, it has not been enough to make up for the cost difference.

misjudgment about the popularity of new styles in shoes. U.S. shoe manufacturers continued to turn out traditional shoes even though consumer tastes had changed. The shoe companies thought the new styles were only fads and would be short-lived. Foreign shoemakers, however, took advantage of the shift in consumer taste. It was the foreign makers who produced the shoes with wide toes and chunk heels that became so popular in the late 1960s. U.S. shoemakers also continued to manufacture the traditional plain tennis sneaker and ignored the spreading popularity of footwear designed for jogging or running. Foreign shoemakers led in such style changes and increased their sales. American shoemakers did not shift until after new consumer tastes were established.

Once stores and customers began buying foreign shoes, it became more difficult for U.S. shoemakers to compete. With sales and profits sagging, U.S. firms did not have the funds necessary to invest in new equipment. They also did not have financial help from their government as foreign shoemakers often did. So while U.S. firms continued to use old equipment, foreign shoemakers were improving and expanding their factories and managing to sell more and more shoes to the United States.

In addition, foreign shoemakers were more willing to use materials other than leather—materials such as vinyl, for example. Leather is the best material for regular shoes but is difficult to work with and requires skilled hand labor. Vinyl costs half as much and can be made into shoes with less effort and fewer steps.

U.S. shoemakers have begun to produce less expensive shoes made of materials other than leather. These shoes are also stylish enough to attract American consumers. As a result, the shoe industry did much better after 1977. Still, foreign shoemakers in 1979 were supplying about half of the shoes sold in the U.S. market.

### Activity III.

Below is a list of brands of shoes and running shoes. Try to find out in which countries they are made.

Adidas	Birkenstock	Jox
Puma	Freeman	Dr. Scholl

Sales clerks and managers of local shoe stores selling these brands of shoes should be able to help you.

## Lesson S3: History of the Shoemaking Process

**TIME REQUIRED:** One class period

**MAJOR CONCEPT:** Productive resources

**Instruction Objectives:** Students will

- Describe how shoemaking evolved;
- Describe the skills and training needed by shoemakers;
- Define mechanization

**Rationale:** Reviews the history of shoemaking and illustrates the effects of innovation and modernization.

**Materials:** Classroom set of copies of Handout S3-1.

**Procedure:**

1. Distribute Handout S3-1. After students have read it, start a discussion of the history of shoemaking. Ask:
  - a. What kinds of shoes did the early Egyptians wear? (Sandals woven from grass.)
  - b. Why were shoemakers respected members of society? (They were skilled workers.)
  - c. What is mechanization? (The replacement of human or animal labor by machines.)
  - d. How did the early shoemakers in America carry on their trade? (By traveling to where

their customers were and living with a family there.)

- e. How did factories come to be established? (Shoemakers began working together to make shoes before customers had specifically ordered them.)
- f. What were the first shoemaking factories called? (Tenfooters.)
- g. What other changes took place in the shoe industry after production was moved into factories? (Shoes were sold through stores; shoemakers had steadier work.)
- h. What change appeared in 1845? (Review with students the list of inventions at the end of the handout.)

2. To start students thinking about the training required for a particular job, ask:
  - a. Have you made any plans about what type of work you would like to do when you complete school?
  - b. What type of skills are needed?
  - c. How will you learn the skills you need?
  - d. Where will you go to learn these skills?
3. Students may wish to do additional research about shoemaking machines.

**Evaluation:** Assess the quality of student contributions to class discussions.

# Handout S3-1

## HISTORY OF SHOEMAKING

The shoe industry in the United States has been having trouble, but that has not always been the case. Previously, the U.S. shoe industry was dynamic and thriving. It exemplified to the world what U.S. technology could do. A brief look at the history of shoemaking will show how American inventors changed the industry.

The making of shoes is an ancient skill requiring the coordination of eye and hand. Among the earliest recorded shoemakers were the ancient Egyptians. We know that by 2,000 B.C. they wore sandals woven from grass. People must have protected their feet from weather and rough surfaces long before then. The first ancestor of the modern shoe may well have been an animal hide simply tied around the foot and ankle.

Shoemakers have traditionally been very respected members of society. This respect was probably due to their skill. Originally, shoes were made entirely by hand with simple tools that remained relatively unchanged for over a thousand years. A shoemaker's tools consisted of a knife, awl, hammer, lapstone (on which to hammer leather), needles, thread, pegs, beeswax, rubbing sticks, and a mold called the "last" around which to make the shoe. In fact, one of the unique features of shoemaking has been its resistance to mechanization, i.e., the replacement of human or animal labor by machines. However, much of the mechanization that did take place originated in the United States.

### Traveling Shoemakers

The first shoemaker to come to this country was Thomas Beard, who arrived in 1629 on the third trip of the *Mayflower*. He brought with him the skills, tools, and customs of Old World shoemaking. One of those customs was to work and live by traveling from one place to another. Beard, and other shoemakers, lived with a family long enough to make shoes for all in the neighborhood who needed them. In return, the craftsman received a small wage, food, and a place to stay. These shoemakers also used their tools to sharpen knives, axes, and saws. They would even pull teeth. As these shoemakers wandered from farm to farm and town to town, they also spread the news and gossip of the day.

### Early Factories

Beginning about the mid-1700s, shoemakers began work together in small factories called "tenfooters." These were small wooden buildings about ten feet long and ten feet wide in which a master shoemaker and three assistants worked. The tenfooters were part of a major change in shoemaking. Instead of making shoes when people ordered them, as shoemakers had in the past, they made shoes ahead of time. The change gave shoemakers a steady job. It also led stores to order shoes and to sell them to customers.

### Mechanized Shoemaking

As a result of a great wave of American inventions in the 1800s, machines took over much of the hard, physical labor involved in making shoes. Although some advances had been made earlier, in 1845 the first machine to be widely used in shoemaking appeared. Here is a list of the chief inventions introduced between 1845 and 1875.

#### 1845

- The "rolling machines" compressed leather for soles in one minute, doing away with hours of labor with lapstone and hammer.

#### 1846

- The Howe sewing machines used a curved needle that could stitch leather as an awl could.

#### 1851 to 1875

- Machines to drive wooden pegs into shoes
- Machines to cut leather
- A machine to sew soles to uppers, the McKay stitcher
- A machine to stitch together the shoe upper and the lining as well as the lip on the surface of the insole—all on the outside of the shoe. This machine, the Goodyear welt stitcher, eliminated stitches on the inside of the shoe which could irritate the foot.

#### Question:

From what you have read so far, what do you think was the most important factor of production in the shoe industry in 1770—land, labor, or capital? Why?

## Lesson S4: Productivity in Shoemaking

**TIME REQUIRED:** One class period

**MAJOR CONCEPTS:** Productive resources  
Investment  
Productivity

**Instructional Objectives:** Students will

- Define productivity;
- Define leasing and royalty;
- Describe the reasons why some machinery is leased;
- Describe how rising productivity normally affects prices.

**Rationale:** To understand the impact of the introduction of machinery on the shoemaking process.

**Materials:** Classroom set of copies of Handout S4-1.

**Procedure:**

1. Distribute Handout S4-1. Tell students to read the handout, but not to complete the student activity until you instruct them to do so. After students finish reading Handout S4-1, ask:
  - a. What could the machine known as the McKay stitcher do? (Sew soles to uppers.)
  - b. How did most shoe manufacturers pay for the use of the McKay machine? (Leased it and paid rent plus a royalty for each pair of shoes made.)
  - c. What effects did his leasing system have on shoe manufacturing? (Increased production greatly and lowered prices.)
  - d. How did McKay keep his machines in good working order? (By hiring repairmen to service them.)

- e. What is productivity? (The efficiency with which resources are used in production.)
- f. What is the productivity of labor—or labor productivity? (The amount of output—goods or services—produced by a given number of workers in a given time.)
- g. How much did the introduction of machinery in the nineteenth century increase labor productivity in shoe manufacturing? (About eight times.)
- h. What effect did increased productivity have on the price of shoes? (It lowered the price of shoes.)

2. After discussion of questions, tell class to complete the student activity

**Answers to Student Activity:**

PRICE COMPANY A MUST CHARGE—	
3 hours of labor at 15 cents per hour	\$0.45
Other costs .....	<u>0.45</u>
Total costs .....	\$0.90
Desired profit of 10 percent .....	0.09
Price .....	\$0.99

PRICE COMPANY B MUST CHARGE—	
24 hours of labor at 15 cents per hour	\$3.60
Other costs .....	0.20
Total costs .....	\$3.80
Desired profit of 10 percent .....	0.38
Price .....	\$4.18

**Evaluation:** Assess the quality of students' responses to the questions.

## Handout S4-1

### PRODUCTIVITY IN SHOEMAKING

Among the many American contributions to the mechanization of shoemaking, those made by Gordon McKay were particularly important. McKay was a shoe manufacturer and former mechanic. He bought, for \$70,000, full ownership of a machine that could sew soles to uppers. It became known as the McKay stitcher and is still in use today.

The machine was expensive by the standards of the day. To help shoe manufacturers avoid the high cost of buying the machine directly, McKay developed a system of leasing, or renting. Manufacturers who did not want to buy his stitcher or could not afford it could lease. If they leased, they paid a rent plus a small fee or royalty for each pair of shoes the machine made.

The process of directly buying or building means of production such as machinery is called investment. When McKay built his machines, he was ac-

**When buying or leasing a machine, a business expects to sell enough of its product at prices that will enable the machine's cost to be recovered in three to five years. The business also expects that earnings will be greater with the machine than without it. Shoe manufacturers still lease most of their machines today. Leasing equipment is common in shoe manufacturing and in some other industries because it saves the company the investment needed to purchase the machines. Much computer equipment is leased.**

tually "investing" on behalf of those who leased the machines from him.

#### Student Activity:

The following two imaginary companies operating around 1895 are attempting to set a price for their shoes. Company A uses the latest equipment available, while Company B uses no machines, only hand tools.

Each company wants to earn a 10 percent profit on each pair of shoes. The figures below for each company state the labor and other costs to make one pair of shoes. What price must Company A charge for its shoes? What price must Company B charge?

#### Company A: Expenses to make one pair of shoes:

Labor costs per hour .....	\$0.15
(Workers using machines can make one pair of shoes in three hours.)	
Other costs (machines, power, buildings, materials) .....	\$0.45

#### Company B: Expenses to make one pair of shoes:

Labor costs per hour .....	\$0.15
(Workers can make one pair of shoes in 24 hours.)	
Other costs (buildings, materials) .....	\$0.20

## Handout S4-1 (concluded)

McKay's stroke of genius in introducing the royalty and leasing system for machinery revolutionized the shoe industry. People without very much money or savings were able to become shoe manufacturers. Moreover, McKay's new machine greatly increased production, shortened working hours, and provided the public with better shoes at lower prices. The rapid growth of shoe manufacturing drew shoemakers from the villages and the small local shops into big factories equipped with power-driven machines.

Shoe manufacturing began to spread from the New England states westward into Illinois, Michigan, and Wisconsin. McKay organized a corps of repairmen to keep the machines in top condition. Almost overnight, the U.S. shoe industry was transformed from relying on handwork not much more advanced than in ancient Egypt to a modern, mechanized, manufacturing process. McKay ac-

tually created wealth by helping to bring a thriving shoe industry into being.

McKay was only one of many who manufactured shoemaking machinery. These machines vastly increased "productivity" in shoemaking: the number of pairs produced in a given amount of time. Since shoes could be made more quickly, less labor was needed to make them. A pair of shoes could be produced in three hours of working time instead of 24 hours. Thus productivity became eight times greater.

The increased productivity dramatically lowered the cost of making shoes. For example, the cost of making a pair of men's shoes fell from about \$5.65 in 1865 to about \$1.00 in 1902 because workers could make shoes in less time and earn larger wages since their productivity had risen. And with prices lower, customers could earn enough money to buy a pair of shoes in fewer hours than before.

## Lesson S5: Unions in the Shoe Industry\*

**TIME REQUIRED:** One class period

**MAJOR CONCEPTS:** Division of labor  
Market structure  
Equity  
Government intervention and regulation

**Instructional Objectives:** Students will

- Describe how unionism began and continued to exist in the shoe industry;
- Name the forces working to change the nature of unionism in the shoe industry as time went on;
- Explain how the division of labor tends to spur the organization of unions as industrialization proceeds.

**Rationale:** The first U.S. union was founded in the shoe industry in 1792 and unions were prominent in it thereafter. The story of unionization is an important part of the history of the industry.

**Materials:** Classroom set of copies of Handout S5-1.

**Procedure:** Give a copy of Handout S5-1 to each student. Allow time for students to read the handout. Then lead discussion of following questions:

1. In the late 1700s, how did the master cordwainers react to the growth of the country and the economy? What did the journeymen do? (As the country and market grew, the master cordwainers increased production of standardized footwear and lowered prices by trying to hire more journeymen at lower wages. The journeymen responded by forming, in 1792, the first union in the United States.)
2. What role did the courts play in the early disputes between the cordwainers and the journeymen? (Until 1842, the courts held that workers acting in concert to raise wages were engaged in a criminal conspiracy. This doctrine crippled union activities across the country.)
3. What was the "domestic system" and why did the masters begin to use it in the early 1800s? (In the domestic system, workers fabricated various parts of shoes in their homes. When finished, the parts were returned to a central workshop for assembly into complete shoes. This system allowed for increased division of labor, which reduced production costs.)
4. Explain how and why the role of the journeymen changed in the 1800s. (With increased division of labor and a lowering of wages because of increased hiring of women, children, and convicts, journeymen became ordinary employees rather than skilled craftsmen.)
5. Name some of the things that the Trades Union of the City and County of Philadelphia and the National Society of Journeymen Cordwainers hoped to accomplish. What happened to these two unions? (The Trades Union petitioned the state legislature to establish a minimum wage, set maximum hours for the workweek, grant the right to collective bargaining, and outlaw the use of convict labor. The National Society of Journeymen Cordwainers set a minimum wage at which members would accept work. It also established an affiliated association for female cordwainers. Both unions collapsed during the severe depression of 1837-43.)
6. What were the two main aims of the Knights of St. Crispin? (To maintain or increase wages and to restrict the hiring of new, unskilled workers unless they agreed to join the union.)
7. What events led to the destruction of the Knights of St. Crispin? (The depression left the union members with a choice: either accept lower wages or else be unemployed. They chose lower wages and, in effect, destroyed the union's power.)
8. What two developments brought the shoe industry into the era of modern factory production and how were shoe workers affected? (The two developments were the introduction of many new machines and the completion of the transcontinental railroad. Because workers now needed fewer skills, their wages were reduced.)
9. In what ways was the Knights of Labor a modern union? (The Knights of Labor was a national union that would accept all eligible workers regardless of race, sex, or level of skill.)
10. Do separate unions for workers in the shoe industry still exist? (No. With the decline of the U.S. shoe industry, the shoe unions were weakened and were finally absorbed into other unions.)

**Evaluation:** Assess quality of students' contributions to the discussion.

\* This lesson was prepared by John DeVita of the Collegiate School, Passaic, New Jersey.

## Handout S5-1

### UNIONS IN THE SHOE INDUSTRY

In the mid-1770s, boots and shoes were still completely handmade. The staff of a typical workshop consisted of a "master cordwainer" (expert boot-maker), one or more "journeymen" (experienced workers), and sometimes an "apprentice" (young trainee). These small shops produced two kinds of work. One was called bespoke (a term that means "custom-made," and is still used in Britain but no longer in the United States). The other was ready-made, standardized, and less expensive footwear for general sale.

As the area and economy of the United States grew, so did the market. It became profitable to travel and sell ready-made shoes. In order to sell as many shoes as possible, the master cordwainers tried to increase production and to lower prices. One way to do both was to hire more journeymen at lower wages."

The changes in the economy and the shoe trade began to alter the role of the master cordwainers. They started to become merchants as well as experts in shoemaking. Their attempts to speed up production lowered the status of the journeymen in the shops. In 1792, journeymen in Philadelphia reacted to this change by forming the first union in the United States. It was short-lived but later led to the formation of the Federal Society of Journeymen Cordwainers. The society demanded a basic level for wages and asked for bonuses on bespoke work.

The union called a strike in 1799 that lasted about two months. It struck again in 1805 when the masters lowered wages. This strike ended after eight of the union's leaders were convicted of a conspiracy to restrain trade. That is, by refusing to work at the lower wages, the workers were said to be preventing ("restraining") trade or business. The law held that workers who acted in this way were guilty of "criminal" conspiracy. This court decision destroyed the society and crippled union activities across the country. (It took until 1842 before a court decided that the conspiracy doctrine should not be applied to the activities of U.S. unions.)

As the 1800s advanced, the market for boots and shoes continued to grow. Ready-made shoes became the industry's main product. The masters continued to seek ways of cutting costs while in-

creasing production. They started the "domestic system," in which workers made various parts of shoes in their homes. When finished, the parts were sent to a central workshop where they were assembled into complete shoes. This system increased the division of labor because the work was broken down into simpler tasks. As a result, individual workers required less skill and could be paid lower wages. Because lower wages decreased costs, the masters could charge less for shoes and could sell more.

The position of the masters was again changing. They had been senior craftsmen. Now they were turning into businessmen. The masters sought to lower production costs further by hiring women, children, and even convicts. These groups received lower wages than those paid to male workers. Meanwhile, the journeymen were no longer people with special skills who were nearly equal to the masters. They were becoming ordinary employees. All these developments caused the workers to become more dissatisfied and to again encourage the growth of the unions.

In 1833, the Trades Union of the City and County of Philadelphia was formed. It was made up of cordwainers, tailors, and bookbinders. It asked the state legislature to (1) establish a minimum wage, (2) set maximum hours for the workweek, (3) grant the right to bargain collectively, and (4) outlaw the use of convict labor. The National Society of Journeymen Cordwainers was formed in 1836. It created a strike fund and set a minimum wage below which members would not accept work. It also established a related organization for female cordwainers. These two unions were part of the first important wave of unionization in the United States. However, most of the organizations that were then formed fell apart during the economic depression of 1837-43.

After the Civil War shoe workers formed what became the largest union of its time, the Knights of St. Crispin. The Knights were not only a union but also engaged in social, fraternal, and political activities. The union tried to maintain or increase wages. It also fought to restrict the hiring of new, unskilled

## Handout S5-1 (concluded)

workers unless they agreed to join the union. The Knights feared that otherwise such workers would accept lower wages than union members received.

There was another severe depression in 1873. Members of the Knights of St. Crispin were forced to choose between working for reduced wages or not working at all. They chose lower wages and thus, in effect, destroyed the union's power. Membership declined and the Knights were out of existence by 1879.

Two developments encouraged the rise of modern factories in the shoe industry. One was the large-scale introduction of machinery. That finally ended the craft era and further reduced the price of shoes. The other was the completion of the transcontinental railroad, which made possible a national market for producers of shoes.

The spread of modern factories caused wages in the shoe industry to go down further. A considerable number of shoe workers therefore turned to the Knights of Labor. This was a national union that took in workers from all crafts and industries

regardless of sex, skill, or race. It was in many ways a forerunner of modern union organizations.

The Knights of Labor originated in Philadelphia in 1869. They grew to nearly 750,000 members by the mid-1880s, but then lost major strikes and grew weak. Shoe workers were part of a separate organization within the Knights. The shoe group survived the Knights of Labor and joined the American Federation of Labor (AFL) as the Boot and Shoe Workers International Union in 1895.

The Boot and Shoe Workers did rather well, but did not succeed in organizing the entire industry. Unionism in the industry again grew with the formation of the United Shoe Workers in 1937. The latter joined forces with the Congress of Industrial Organizations (CIO).

In 1955, when the AFL and the CIO joined to form the AFL-CIO, the Boot and Shoe Workers International and United Shoe Workers of America each became a member of the new group. In recent years, as the shoe industry in the United States faced increasing difficulties, larger unions in the AFL-CIO have absorbed the two shoe unions.

## Lesson S6: A Modern Shoe Factory

TIME REQUIRED: One or two class periods

MAJOR CONCEPTS: Division of labor  
Productive resources  
Economic incentives

Instructional Objectives: After completing the lesson, students will

- Explain how a shoe is made;
- List five skilled jobs in the leather-shoe industry;
- Define piecework;
- Explain why profits are important to a shoe company and the uses to which they may be put.

Rationale: Gives students an understanding of how leather shoes are made in a modern-day factory and how the work is divided

Materials: Classroom set of copies of Handout S6-1 for each student.

### Procedure:

1. Give a copy of Handout S6-1 to each student. Allow time for students to read the handout. Then lead discussion of the following questions:
  - a. What are the five major steps involved in making a pair of shoes? (Cutting, fitting, lasting, bottoming, and finishing.)
  - b. What is piecework? (Work paid for at a set rate for each unit produced.)

- c. Explain division of labor, using the shoemaking industry as a model. (See Overview and associated Lesson 3.)
- d. How is leather tanned? (See boxed description in the handout for the lesson.)

2. Once students understand the meaning of division of labor, lead class discussion on why it is a more efficient method of production than having one person take care of the entire process.
3. Explain the importance of profits. The expectation of profit encourages business people to try new ways to improve products, to invest in new machinery, to expand production. Encourage students to list as many ways as possible to use their profits to benefit the company. The following could be some of the students' responses: spending on market research, advertising, new equipment, expanded facilities, product development; increasing dividends. Conduct a discussion of items students have listed.
4. OPTIONAL: Try to get someone who is familiar with shoes, for example, a shoe repairman, to take a leather shoe apart in the classroom in order to explain how shoes are constructed. This will make concrete the descriptions in Handout S6-1 and set the stage for discussion of how the division of labor is reflected in the separate pieces and work that go to make a shoe.

Evaluation: Assess student participation in large group work, and in the activities.

# Handout S6-1

## A SHOE FACTORY IN 1979

*A major shoe manufacturer in the United States today is the J. F. McElwain Company. Founded in 1922, it later became part of the Melville Shoe Company. Today the original J. F. McElwain Company and Melville Shoe Company are combined in the Melville Corporation—a firm with sales of more than \$1 billion.*

### Making a Pair of Leather Shoes

Making a pair of leather shoes is complicated. At the McElwain factory in Nashua, New Hampshire, the process is divided into five major steps: cutting, fitting, lasting, bottoming, and finishing. It takes about five days for a pair of shoes to progress from hide to final product. During much of that time the shoes "rest" between steps in order to take the shape of the molds, or lasts. Machinery is used in each step, but worker care and skill are essential in the production of shoes. All the people involved, each skilled in a specialty, take pride in the quality of their work. We will meet some of them as we follow a pair of shoes through the McElwain factory.

#### Cutting

Rene Melanson,<sup>\*</sup> an experienced cutter, begins the shoe construction process. As he carefully plans how to cut a piece of leather, he keeps in mind that the leather in the right and left shoes must match in color, texture, and thickness. Further, he wants to work as rapidly as possible because cutters are paid on a "piecework" basis. Mr. Melanson's union negotiated a contract for him and the other workers at McElwain. The contract states that he and the other cutters will be paid a set amount for each piece they cut. Therefore, the more they cut, the more they get paid.

#### Fitting

Amid the machine-gun-like clatter of stitching machines, workers skillfully shape the pieces of

leather into a complete upper as they sew it together at incredible speeds. Lena Burgess, a master stitcher with twenty-six years on the job, stitches together the upper parts of a shoe in about twenty-five seconds. Speed counts because, like Mr. Melanson, Ms. Burgess is on piecework. A good stitcher or cutter earned as much as \$7.00 per hour in 1979. But the quality of the work is just as important as the speed. If Lena Burgess makes a mistake, the shoe upper has to be redone or even discarded.

A sense of touch is important in a shoe factory. So are judgment, depth perception, and coordination. At the Nashua plant, most stitchers are women. The quality of work they do is very important to the entire process of making shoes. Any difficulties in the stitching operation will slow up the entire plant.

Before it becomes part of the shoe, the upper is usually reinforced in the back and the toe. A stiff "counter" holds the back of the shoe and a "toe box" strengthens the front.

While Lena Burgess and the other employees are working on their tasks, other shoemakers are preparing insoles, outsoles, heels, and other parts of the shoes. To avoid mixing up parts, the workers use different racks for each size and type of shoe. These parts, along with the finished uppers and the "lasts" (shoe molds), are wheeled on racks into the lasting room.

#### Lasting

Lasts are shoe molds used to shape the upper part of a shoe. Separate lasts are made for the right and the left shoe, and they are produced out of plastic, although a few wooden lasts remain in use. Everyone's feet are different, and to fit the different sizes of feet, lasts have been made in more than three hundred sizes and widths. However, most shoes are not made in every size and width.

<sup>\*</sup>Reread Handout S1-1 for a more detailed account of how Mr. Melanson goes about his work.



Uppers and lasts come together in the Nashua factory at the lasting machines operated by "back-part molders." One of them is Jane Dicento. Ms. Dicento is just starting her second year at the factory, and she takes great pride in her work. Standing before the lasting machine, she removes a shoe upper from a rack and places it on a last. When she steps on a pedal, pincers grab the edges of the upper and pull them under the bottom of the last and around the insole. At the same time, the upper

is quickly cemented to the insole. This is done first to the back part of the shoe and then to the front part. In one motion, without hammering nails or backbreaking labor, the machine does what it took old-time shoemakers hours to do.

### Bottoming

The rack of shoes goes next to the bottoming department. Richard Carlson, a shoemaker with eight years' experience, skillfully roughs off the highest bumps on the bottom of the shoe. This insures a proper grip for the cement used to attach the reinforcement and the outer sole. The reinforcement, called a "shank," is a piece of steel, plastic, or wood about four inches long, which is found in the center of the shoe. Without this reinforcement, a shoe would soon collapse.

The next step is to put the outer sole on the shoe. Bernice Pohle operates one of the sole-laying machines nearby. Ms. Pohle places the sole on the machine and the lasted upper on the sole. A press that applies nearly two hundred pounds of force forces the last down on the sole, and the upper and the sole are cemented together. Although the bonding is done in about twelve seconds, the cement is so strong that it will hold the sole and the upper together for the lifetime of the shoe. The last can now be removed from the shoe.

After examining shoes with leather soles, the reader may conclude that the accurately rounded and finished appearance of the soles indicates they were cut out by machine to an exact fit. But they were not. A very skilled worker called an "edge-trimmer" used a special machine to carefully cut away the excess sole. Edge-trimming is done without using gauges or other measuring devices. Rather, the operator holds the shoe against a two-inch cutter blade rotating 10,000 times a minute and does the job entirely by eye. A mistake here could ruin the entire shoe. It takes many years to learn the skills needed to be an edge-trimmer. Robert Polinka, the supervisor, waited ten years to get an edge-trimmer's job.

#### Student Activity:

The separation of shoemaking into various steps is an example of the "division of labor." Can you explain why shoes can be made faster this way than by having one person make a complete pair?

## Handout S6-1 (concluded)

### Finishing and Packaging

It takes about a day for a pair of shoes to undergo the many different operations performed on it in the fitting department. The lasting, sole-laying, and sole-trimming operations take two or three days. Then the shoes are ready for final processing. Ink is applied to the trimmed edges. Then the shoes are polished, buffed, and sprayed with a protective finish.

Next the shoes have to pass final inspection. Those that do are packed by Susan Gleason and Ann Shields into shoe boxes with the left shoe facing out and the right facing in. Finally, the shoes are distributed to more than a thousand Thom McAn retail stores operated by the Melville Corporation in all parts of the country.

#### Student Activity

Profits are important to a company. When a company is sufficiently profitable, its managers or owners are encouraged to increase production, to try new ways of producing products, and to introduce new products. If the companies in an industry are making regular and substantial profits, other investors are

encouraged to enter the industry. An increase in the number of companies should lead to an increase in the supply of the product, and this would hold down prices.

If you were a shoe manufacturer who had made a profit last year, list some ways you could use your profit to benefit your company.

## Lesson S7: Help for the Shoe Industry

**TIME REQUIRED:** Two to four class periods

**MAJOR CONCEPTS:** Government intervention and regulation  
Competition  
Investment  
Productivity  
Charting

**Instructional Objectives:** Students will

- Describe recent major trends in the shoe industry;
- Generalize about the reasons for those trends;
- Define tariff;
- Explain why higher tariffs would help manufacturers and workers in the shoe industry but hurt sellers and buyers of shoes;
- List actions the federal government is taking to help the shoe industry.

**Rationale:** To make students aware of attempts to relieve the shoe industry's problems.

**Materials:** Classroom set of copies of Handouts S7-1, S7-2, S7-3, and S7-4. (Note that the activity in Handout S7-4 is optional.)

**Procedure:**

1. Distribute Handouts S7-1 and S7-2. Allow time for students to complete them. After students have analyzed information in the handouts, lead class in a discussion of the following questions:
  - a. What do these charts show about the shoe industry in the United States? (Factories are closing; there has been a major increase in imports.)
  - b. How does the chart in Handout S7-2 relate to the chart in Handout S7-1? (The enormous rise of shoe imports since 1968 suggests that these imports may have helped cause an increase in net closings of shoe factories.)
  - c. Answers to questions on Handout S7-1:  
(a) 1966; (b) 1970; (c) 45; (d) about 300.
  - d. Answers to questions on Handout S7-2:  
(a) about 240 million pairs; (b) about 100 mil-

lion pairs; (c) about 100 to 105 million pairs;  
(d) 1976.

2. Distribute Handout S7-3 and have students read it. Then ask:
  - a. What is a tariff? (A tax on imports.)
  - b. Why did some shoemakers want the tariff raised? (To make foreign-made shoes more expensive relative to U.S.-made shoes.) Would raising the tariff help United States shoemakers? Would a tariff help employees in the shoemaking industry? (Yes. A tariff would raise the price of foreign-made shoes sold in the United States. Since U.S.-made shoes are more expensive than foreign-made shoes, a tariff would make the former more competitive. Sales of U.S.-made shoes should therefore increase, which would raise the profits of U.S. shoemakers and increase the employment of U.S. workers.)
  - c. Who would be hurt by raising the tariff? Why? (Shoe buyers because of higher prices; shoe sellers because at higher prices they would sell fewer shoes.)
  - d. What has the federal government done to help the shoe industry? (From 1977 to 1981 the federal government had an agreement with Taiwan and Korea to limit their exports of shoes to the United States. The government has also granted loans to U.S. shoe industry; furnished experts to help the U.S. shoe industry; started a training program to help laid-off workers look for other jobs.)
3. **OPTIONAL:** (The following supplementary activity requires one class period.) Distribute Handout S7-4 to students. Divide the groups of debaters into teams of two to four students each. Be sure students prepare their statements carefully and that they follow the time limitations and other directions. You may wish to have available current readings for students to use in preparing their statements.

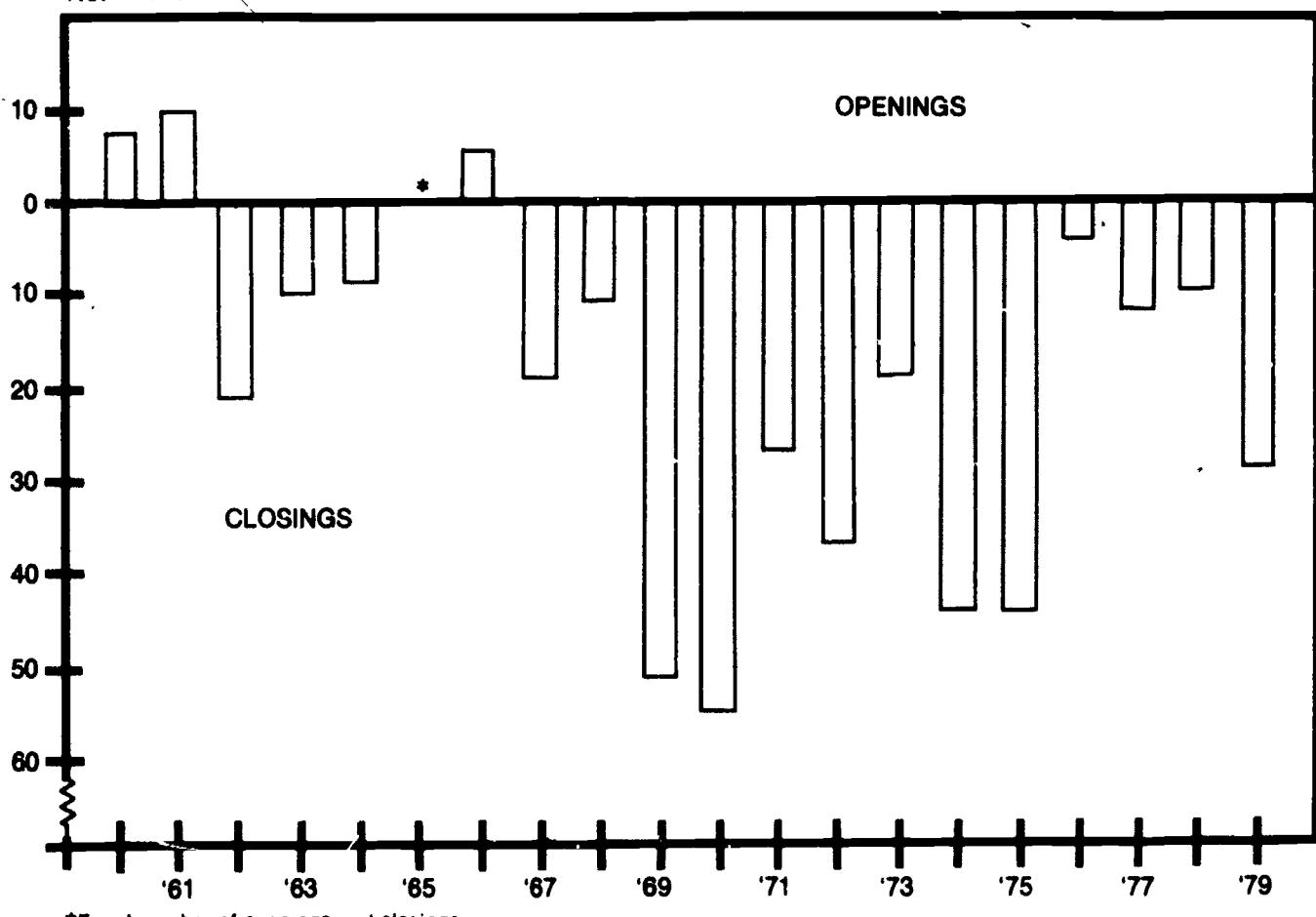
**Evaluation:** Assess students' contributions based on completion of handouts, discussions, and participation in debate.

# Handout S7-1

## NET OPENINGS AND CLOSINGS OF NONRUBBER FOOTWEAR FACTORIES, 1960-75

The chart below is unusual. Look at it carefully. The bars go up and down from a zero (0) line which is located near the top of the graph. Bars that appear above the zero line show, on a net basis, how many factories were opened. Bars that appear below the zero line show, on a net basis, how many factories were closed. The "net" is the difference between the number of openings and closings in a year. For example, in 1961 about ten more factories opened than closed. In 1971 almost 30 more factories closed than opened.

Net Number



\*Equal number of openings and closings.

### Questions:

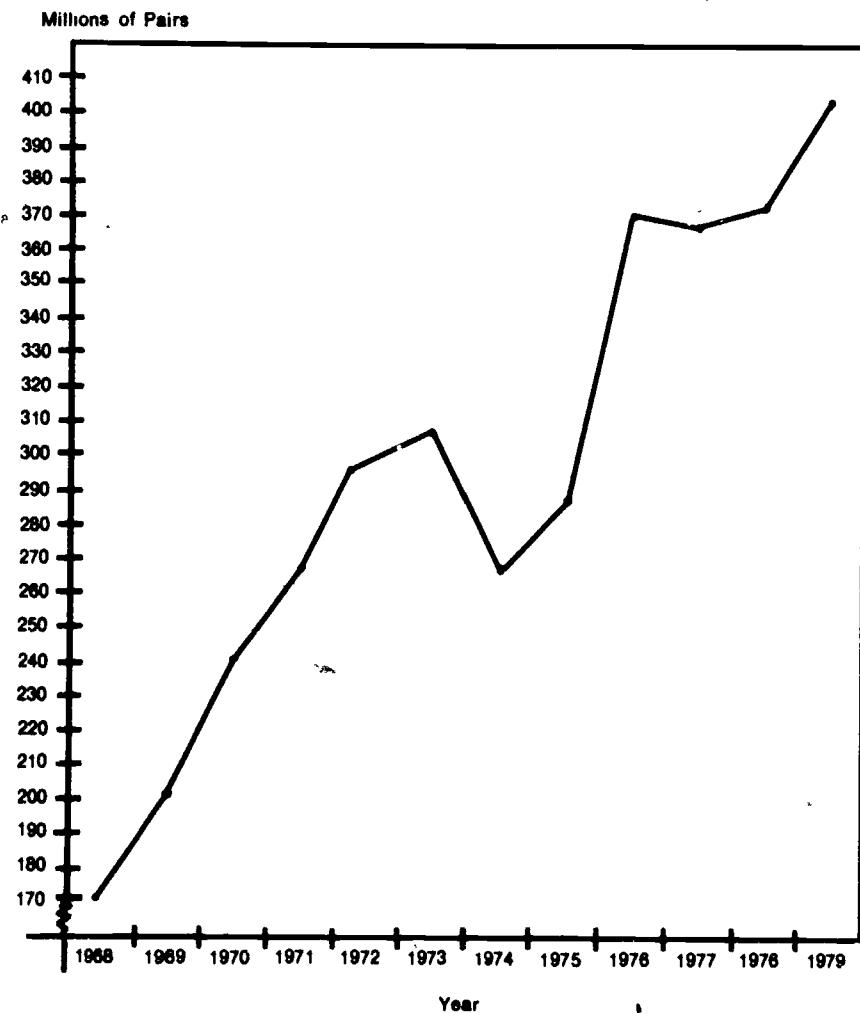
- What was the last year between 1960 and 1978 in which there was a net increase in the number of nonrubber footwear factories? \_\_\_\_\_
- In what year was there the greatest number of net closings? \_\_\_\_\_
- Approximately how many factories closed in 1975? \_\_\_\_\_
- Approximately how many factories closed from 1969 to 1975? \_\_\_\_\_

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Handout S7-2

### U.S. IMPORTS OF NONRUBBER FOOTWEAR, 1968-79

#### U.S. Imports of Footwear, Except Rubber



Study the chart and then answer these questions:

- About how many more pairs of shoes were imported in 1979 than in 1968? \_\_\_\_\_
- When imports declined in 1974, about how many more pairs were imported than in 1968? \_\_\_\_\_
- What was the approximate amount of the change in shoe imports between 1974 and 1976? \_\_\_\_\_
- In what year did the amount of shoe imports increase the most? \_\_\_\_\_

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Handout S7-3

### THE FUTURE OF THE SHOE INDUSTRY

The U.S. shoe industry, once a model for the world, has been in trouble during recent years. Many factories have closed and many shoemakers have been put out of work. Foreign competition, high labor costs, out-of-date machinery, and changing styles have all contributed to the shoe industry's decline.

U.S. producers have turned to the federal government for help, and it has responded in several ways. First, the government has put a "tariff," or tax, on shoes imported into the United States. Some domestic producers have suggested setting the tariff at 40 percent. A price foreign producers charge U.S. importers at that rate would apply to shoes from any country shipping more shoes per year than it did in 1974. A tariff that high would make foreign-made shoes too expensive to compete with U.S.-made shoes and would probably discourage foreign producers from exceeding their 1974 shipments.

While a high tariff would please shoemakers, it would distress sellers or buyers. Shoe stores have been making a profit by selling foreign shoes and do not want a high tariff that would reduce or eliminate this profit. Shoe buyers don't want to pay higher prices.

In spite of the arguments by U.S. shoe manufacturers, the tariff has not been raised. Instead, in 1977 an agreement was made with Taiwan and Korea, which had accounted for much of the increase in imports, to limit the number of shoes those countries could send to the United States. Because of such limitations, U.S. shoemakers were able to sell more shoes. The limits, however, were allowed to end in 1981.

In addition to restricting the import of shoes, the federal government agreed to make loans available to U.S. shoemakers so that they could buy or

lease up-to-date equipment. By modernizing their factories, with the latest machinery, they may be in a better position to compete with foreign shoemakers even though imports are no longer limited. The federal government is also providing and paying for help and advice to U.S. shoemakers by teams of experts. Finally, the government has established programs to retrain unemployed shoe workers for other jobs.

Increasing the productivity of each worker is probably the best way to make certain the American footwear industry survives. The shoe industry is investing in its own future by buying new machinery designed to raise "productivity"—the number of

#### Student Activity:

In your library, try to find articles and data to answer the questions below.

- a. Are there now limits on U.S. shoe imports from Taiwan and Korea? Are the limits, if any, higher or lower than those in effect up to 1981? Are there now limits on imports of shoes from any other countries?
- b. Can the tariffs on U.S. imports of shoes be described as high?
- c. Have U.S. shoe exports increased since 1979?
- d. Has the foreign-made share of the U.S. shoe market continued to rise?
- e. What are the current problems of the U.S. shoe industry? What are some of the proposed solutions? List the problems and proposed solutions and discuss them in class.

## Handout S7-3 (concluded)

shoes made in a set amount of time. The new machinery will permit cutting, stitching, and trimming to be done more quickly and with fewer workers.

Computers are also helping to increase productivity. Some computer-directed processes are now possible. Cowboy boots, for instance, can be decorated in minutes using a computer-controlled sewing machine. This process is much more efficient than hand stitching.

Shoemakers are also using computers to solve management problems. Computers help make sure that enough raw materials of the right type are available and keep track of all the various sizes and styles of finished shoes on hand. Computers are also being used in retail inventory control, so that stores have enough shoes of the right style and size.

U.S. manufacturers are even beginning to sell more shoes to foreign countries, especially in

Europe. There are several reasons why shoe exports are rising. Many Europeans want casual shoes with a "Made In U.S.A." label to go with their U.S.-made jeans. Shoe prices in Europe have been rising faster than in the United States, and therefore U.S.-made shoes often cost no more, or even less, than do shoes made in Europe. Further, U.S. manufacturers supply shoes that fit a customer's feet better than do European manufacturers. U.S. shoemakers hope that by 1982 about 5 percent of their output will be sold in foreign countries. That would be a considerable increase over the 1.4 percent of production sold in foreign markets in 1977.

The U.S. shoe industry is responding to the challenge of foreign competition. With assistance from the federal government, it is attempting to modernize its factories and to increase its exports. These efforts appear to be helping the industry regain its previous strength. If they are successful, this proud industry will have a bright future.

# Handout S7-4

## DEBATE ON TARIFFS

### Directions:

Students participating in this debate should be divided into two teams of two or four members each, with one team in favor of raising tariffs and the other opposed. Each speaker is limited to five minutes. Speakers may not be interrupted. After all speakers have had a turn, a member from each side has one minute to summarize that side's position. All speakers should thoroughly prepare their statements in advance. Some of the information derived from the student activity in Handout S7-3 will also be helpful. Use the list of arguments as a guide. Note that some are better than others and that some repeat others.

### ARGUMENTS FOR TARIFFS

1. Tariffs protect domestic industries from foreign competition.
2. Tariffs prevent unemployment in protected industries.
3. A reduction of imports can increase the value of U.S. dollars relative to foreign currencies.
4. Tariffs promote economic and military self-sufficiency.
5. Tariffs help minimize trade deficits and thus the buildup of debts to foreign countries.
6. Trade with another country can become so important that actions about that trade can be used for political purposes.
7. There is less control over the quality of imports than of domestic production, which results in less protection for consumers.
8. Tariffs prevent financial losses to domestic investors and businesses that can result from foreign competition.
9. Because wages are less in most other countries than in the United States, tariffs prevent a flood of foreign imports that can keep wages here low.
10. Dependence on foreign goods can cause problems of shortages in case of war.
11. If an industry is destroyed through competition from other countries, those countries may thereafter be able to charge higher prices for needed goods.
12. Importers can flood the market with more goods than can be purchased—causing prices, production, and employment to fall.

### ARGUMENTS AGAINST TARIFFS

1. Tariffs result in higher prices for consumers.
2. Tariffs hinder customers from buying foreign goods they want.
3. Tariffs decrease the standard of living for all countries engaged in foreign trade by limiting the manufacture and purchase of goods.
4. Tariffs do not allow countries to specialize in the production of the items they can produce most cheaply.
5. Tariffs imposed by one country can lead other countries to impose tariffs.
6. Tariffs can cause increased unemployment in industries involved in exporting.
7. Tariffs protect industries that are poorly managed.
8. Tariffs may cause poor-quality goods to be produced because of lessened competition.
9. Competition through trade results in improved efficiency in production, helps to eliminate waste, and thus tends to lower prices to consumers.
10. Periods of high tariffs and economic depression tend to occur together.
11. Open trade between countries strengthens their diplomatic and military alliances.
12. Open trade can promote peace—countries buying needed goods or selling surplus goods are unlikely to attack the countries with which they do business.

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

## Lesson S8: The Story Summed Up

**TIME REQUIRED:** One or two class periods

**MAJOR CONCEPTS:** All those listed in the previous seven lessons

**Instructional Objectives:** Reinforcement of what was learned about the history, problems, and economics of the shoe industry.

**Rationale:** To present a review of "The Story of Shoes."

**Materials:** Classroom set of copies of handouts S8-1, S8-2, and S8-3. (Note that the activities in handouts S8-2 and S8-3 are optional.)

**Procedure:**

1. Distribute Handout S8-1 and have students read it.
2. Ask:
  - a. What productive resources are required to make shoes? (Labor: human skill and effort; natural: land, water for tanning and similar operations and as a source of power; and capital: machines, factories.)
  - b. Why is the shoe industry considered "labor intensive"? (A shoe factory needs relatively many workers.)
  - c. Shoemakers use machines. What have been some of the consequences of using more machines? (Cost of shoes reduced, productivity increased, factory buildings changed, leasing and royalty system established.)
  - d. Why is skilled labor still needed despite the use of machinery? (Machinery reduces the amount of labor needed but is not completely automatic—the machinery needs to be guided by skilled workers.)
  - e. What makes the shoe industry an example of the division of labor? (Individual workers do not make the whole shoe; instead they only work on specific parts.)
  - f. What is nonhuman energy used for? (To provide power for heating, lighting, and operation of machines.)
  - g. What are the sources of the funds with which to carry on manufacturing? (Retained earnings, loans, investors.)
  - h. Who sets the price for shoes? (In a sense, the public does because people buy the shoes they can afford. Shoe producers try to cover ex-

penses and make a profit, but if their prices are too high, people will not buy their shoes. One reason foreign shoes sell well is because they are less expensive.)

- i. Name the major problems facing U.S. shoemakers today. (Competition from imports, high production costs, changing styles.)
- j. Why are foreign shoemakers attracted to the U.S. market? (The large number of shoes bought here.)
- k. What arguments are given for and against raising the tariff? (See Handout S7-3.)
3. **OPTIONAL:** Distribute Handout S8-2 and have students complete the puzzle. (Completed puzzle is shown below.)
4. **OPTIONAL:** Distribute Handout S8-3 and have students match the terms with the definitions. These are the questions and answers:
  - a. Give two terms which refer to potential problems for a manufacturing business that originate abroad. *Foreign competition; imports*.
  - b. In attempting to solve the problems referred to in question a, what may a government impose to raise the price of foreign products in order to protect domestic manufacturing businesses? *Tariffs*.
  - c. Which two terms in the list refer to processes that use less human labor? *Automation; mechanization*.
  - d. What term refers to output per worker? *Productivity*.
  - e. Profits reinvested in a business are called *retained earnings*.
  - f. One way of getting equipment without investing large amounts of capital is called *leasing*.
  - g. The fee equipment manufacturers receive when they are paid according to the number of items the equipment produces is called a *royalty*.
  - h. Receiving a set wage for each item made is called *piecework*.
  - i. What term refers to the practice of having each worker perform only a certain task in a factory? *Division of labor*.

**Evaluation:**

1. Assess students' performance in class discussions and activity sheets.
2. Assess students' performance on a written test. (See tests A and B, which follow this lesson.)

## Solution to Word Search

E	Z	B	A	S	P	E	C	I	A	L	M	Z	A	T	I	O	N
U	P	T	Q	N	C	Y	S	H	O	E	M	A	K	E	R	S	O
T	F	R	I	P	E	R	C	E	N	T	P	O	M	J	V	H	F
A	A	O	U	C	Z	T	E	C	H	N	O	L	O	G	Y	L	
R	C	T	D	D	A	E	N	G	T	A	R	I	F	T	F	A	
I	T	O	H	M	E	R	G	E	D	J	T	X	L	L	I	G	B
F	O	R	E	I	G	N	S	H	O	E	S	N	A	O	L	O	O
F	R	U	T	S	I	A	T	R	A	D	E	Y	O	H	E	V	R
B	I	I	M	S	L	P	R	M	W	M	O	D	E	I	A	E	E
H	E	T	A	I	N	E	D	E	A	R	N	I	N	G	S	R	A
U	S	E	F	F	I	C	L	E	N	T	F	Z	B	I	N	R	
A	L	D	L	I	N	A	U	T	O	M	A	T	T	O	N	M	N
E	I	N	V	E	N	T	I	V	E	S	O	G	Q	M	G	E	I
L	A	B	O	R	I	N	T	E	N	S	I	V	E	X	P	N	N
W	M	E	C	H	A	N	I	Z	A	T	I	N	G	T	G		
H	Y	T	P	R	O	D	U	G	T	I	V	I	T	Y	E	C	S
C	M	X	F	Z	V	C	O	M	P	E	T	T	I	T	N	U	
F	O	R	E	I	G	N	T	M	A	N	A	G	E	M	E	T	

# Handout S8-1

## WHAT'S IN THE STORY

We have traced the story of the making of leather shoes. We will now review some of the key ideas.

### The Role of the Individual

We have seen how people's inventiveness brought about a revolution in the way leather shoes are made and sold. As the invention of machines eliminated much hand labor, shoemakers gradually formed small shops, and from these shops grew shoe factories. These required efficient management, and Americans led the way: New England shoe factories early in this century became the envy of the world because of their highly advanced production methods. Management also experimented with new ideas, such as leasing machinery, and with new ways of marketing shoes. Frank Melville Jr. was a leader in trying new marketing methods.

### The Role of Labor

Shoe manufacturing is an industry that is often described as "labor intensive." In a labor-intensive industry, relatively more units of labor than of land or capital are needed to produce the product.

As we have seen, workers in the shoe industry need to be very dexterous and require many years of training. Since most of the strenuous operations are done by machines, and skilled employees are hard to replace, they are often able to work beyond the normal retirement age.

### The Role of Natural Resources

There were good reasons why shoe manufacturing began in New England. Not only was most of the Colonial population concentrated there, but such natural resources as cowhides were at hand, too. The abundant water required in the complicated process of tanning skins and for the early production of power was also available in the region.

### The Roles of Tools and Machines

The invention of tools and machines have greatly increased our ability to manufacture shoes. Such

simple tools as the awl, the hammer, and the lapstone had been used in shoemaking since the time of the ancient Egyptians. It took the efforts of many inventors to mechanize shoe manufacturing. A sewing machine with a curved needle that could stitch leather, a machine for sewing soles to uppers, and many other machines came in rapid succession. With them a shoemaker could easily make twenty pairs of shoes in the time it formerly took to make one pair by hand. The price of shoes therefore became cheaper.

The shoemakers' work became specialized, with each person handling a specific job, such as sewing on the uppers. But we have also seen that despite the widespread introduction of machinery, personal skills and pride in one's work remain critical in shoemaking. Because one hide differs from another, leather shoes cannot be produced as automatically as pins, shirts, or automobiles.

### The Role of Nonhuman Energy

The use of machines did away with a lot of the hard physical labor involved in making shoes. At the same time, around the middle of the nineteenth century, types of energy more efficient than that supplied by human hands began to be applied to shoemaking. First, horses turned the wheels of the machines. Later, steam or water power was used. By the end of the nineteenth century, electricity had come into wide use. The advances in nonhuman energy sources made possible even more sophisticated machinery.

### The Role of Savings and Profits

Savings and careful money management were important in financing the invention and manufacturing of a new machine or of starting a new business. Without savings, Gordon McKay could not have acquired the rights to the stitcher or developed it into a machine that revolutionized shoemaking. Without savings he could not have paid for the machines he leased to other shoe manufacturers. Without using savings from its profits, the Melville Shoe Corporation could not have survived or continued to expand its operations.

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## Handout S8-1 (continued)

The goal of a business is to make a profit by selling the goods (or services) it produces for more than the cost of producing them. The profit (money) gained can be used to expand the business and make it still more efficient. Profit thereby allows the business to employ more people and to contribute

more production to the economy. In addition to using its profits and the personal savings of its founders to expand, a business can grow through the investment of others, those willing to take a share of ownership by purchasing the stock a company can issue. Money can also be raised by borrowing from banks, savings and loan associations, or individuals. Leasing machinery instead of buying it is another way to expand or modernize. Leased equipment is owned, and therefore financed, by another party.

### The Role of Price

Price plays an important part in each step of making shoes. The shoe manufacturer buys leather from tanneries. Changes in the price of leather may depend on factors far removed from the shoe factory. One example: a drought might force ranchers to sell more cattle to the slaughterhouses, and the slaughterhouses will therefore have more hides to sell, which generally causes the price of leather to fall. In such an event, shoe manufacturers will buy more than they immediately need. By stocking up on leather when it is less expensive, the manufacturers can produce and sell shoes for less. The consumers' influence on price can be substantial. Consumer income is limited, and consumers are always looking for the best buys for the money they have available.

### The Role of Imports

U.S. shoe manufacturers once dominated the industry worldwide. Only a few years ago, it was common to find as many as fifteen or twenty shoe manufacturing companies clustered in a small Massachusetts or New Hampshire town. Foreign competition has now become severe, however. The major reason is that the United States is the best and biggest market in the world for shoes. We buy one-fourth of all the shoes made in the world, about four pairs a year for every American child and adult. Small wonder that manufacturers in countries such as South Korea and Taiwan are attracted to such a market.

Just how keen this competition has become can be seen in the following figures. As recently as 1958, total imports accounted for less than 5 percent of the shoes sold in this country. Today, they

## Handout S8-1 (concluded)

account for more than *half*. Competition from substitute materials has hurt leather-shoe manufacturers less than imports. There is really no good substitute that can match the softness and resiliency of leather and its remarkable ability to "breathe," or let air in and out. Synthetic materials such as rubber and plastics have made more significant inroads as shoe soles, however.

The shoe industry thus faces some serious challenges. There is a continual battle in Congress between the supporters and opponents of strict regulations on imports. Opponents argue that we can't shut off imports of shoes from other countries if we expect them to buy products made in our country.

They also argue that if imported shoes are equal or better and cheaper than U.S.-made shoes, American buyers benefit from importing shoes and using the millions of dollars saved to buy other U.S.-made products, thus creating jobs in other industries. Supporters of stricter control on imports argue that imports are killing off our own shoe industry and destroying jobs here.

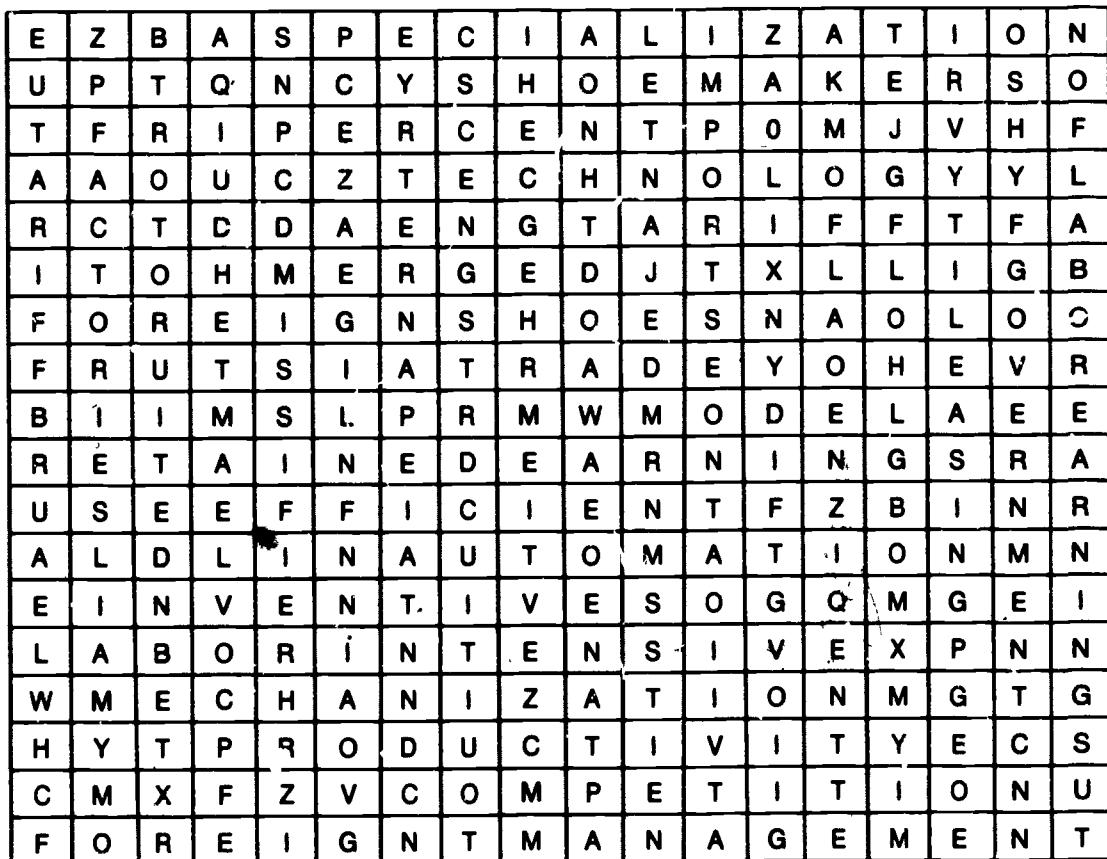
As you have seen, the shoe industry faces many challenges. You have also seen that people have different ideas about how to solve the problems. Solving such problems is important to the health of our economy.

# Handout S8-2

## WORD SEARCH

Name \_\_\_\_\_ Class \_\_\_\_\_

**Directions:** Find the terms hidden in the puzzle. You may work horizontally, vertically, and diagonally. Some words are used twice, as indicated on the list.



Specialization  
Prudent management  
Tariff (twice)  
Foreign  
Technology  
Imports  
Leasing (twice)  
Retained earnings  
Earnings  
Efficient  
Automation  
Inventive  
Labor intensive  
Mechanization

Productivity  
Competition  
Management  
Royalty  
Merged  
Foreign shoes  
Model  
Shoemakers  
Factories  
Percent  
Trade  
Government  
Labor

From *Master Curriculum Guide for the Nation's Schools, Part II, Strategies for Teaching Economics: Junior High School Level (Grades 7-9)*, 1981. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036

# Handout S8-3

## CONCEPT MATCH

Name \_\_\_\_\_ Class \_\_\_\_\_

**Directions:** Select words or phrases from the list shown and write them in the blank spaces on the proper line below. Use each word or phrase only once, but every word fits somewhere. Be prepared to explain why you answered as you did.

piecework  
tariff  
foreign competition  
retained earnings

mechanization  
division of labor  
automation

productivity  
leasing  
imports  
royalty

a. Give two terms which refer to possible problems for a manufacturing business that originate abroad.

\_\_\_\_\_

b. In attempting to solve the problems referred to in question a, what may a government impose to raise the price of foreign products in order to protect domestic manufacturing businesses?

\_\_\_\_\_

c. Which two terms in the list refer to processes that use less human labor?

\_\_\_\_\_

d. What term refers to output per worker?

\_\_\_\_\_

e. Profits reinvested in a business are called

\_\_\_\_\_

f. One way of getting equipment without investing large amounts of capital is called

\_\_\_\_\_

g. The fee equipment manufacturers receive when they are paid according to the number of items the equipment produces is called a

\_\_\_\_\_

h. Receiving a set wage for each item made is called

\_\_\_\_\_

i. What term refers to the practice of having each worker perform only a certain task in a factory?

\_\_\_\_\_

## Story of Shoes

### ANSWER KEY FOR TESTS

Lesson	Test A		Test B	
	Question	Answer	Question	Answer
S1	1	d	1	a
S2	3	a	3	b
	4	b	4	b
S3	5	c	5	b
	6	c	6	a
	7	c	7	c
S4	8	a	8	c
	9	a	9	b
	10	d	10	a
S5	17	c	17	d
	18	b	18	d
S6	2	c	2	c
	11	c	11	c
	12	a	12	d
	13	d	13	b
	14	c	14	d
	15	a	15	a
	16	b	16	c
S7	19	a	19	d
	20	b	20	d
	21	b	21	c
	22	c	22	c
S8	23	b	23	b
	24	d	24	d
	25	d	25	a
	26	d	26	c
	27	c	27	a

## "The Story of Shoes": Tests

### TEST A

1. Which of these is a skill needed by shoeworkers?
  - a. Hand-eye coordination.
  - b. Depth perception.
  - c. Very flexible fingers.
  - d. All of the above.
2. Leather is a very good material for making shoes because
  - a. It needs to be tanned.
  - b. It comes in many bright colors.
  - c. It has many air spaces that let air circulate around the feet.
  - d. It is very firm and stiff.
3. What is a tariff?
  - a. A tax on imported goods.
  - b. A tax on all shoes made in the United States.
  - c. A law forbidding foreign competition.
  - d. A tax on goods made and sold in the same country.
4. What effect has competition from foreign shoes had on U.S. shoe manufacturers?
  - a. The number of companies has grown larger.
  - b. The number of companies has grown smaller.
  - c. The number of companies has remained unchanged.
  - d. The companies are in a better financial position.
5. Tools and equipment used to make shoes have
  - a. changed little within the last 500 years.
  - b. constantly changed throughout history.
  - c. only comparatively recently changed.
  - d. never changed.
6. Which of the following did early shoemakers use?
  - a. McKay stitcher.
  - b. Automatic cutter.
  - c. Awl.
  - d. Shoe rack holding 12 pairs of shoes.
7. Shoe styles have
  - a. changed little.
  - b. always been sensible.
  - c. often been a way of determining a person's status in society.
  - d. never changed.
8. Which of the following was common before shoes came to be made in factories?
  - a. Shoes were made to order.
  - b. Shoes were sold in stores.
  - c. Shoemakers had year-round work.
  - d. Shoes were made before people ordered them.
9. Productivity can be defined as
  - a. the number of items produced by one worker in a given period.
  - b. the amount of money a person is paid.
  - c. the payment of workers for the number of items they make.
  - d. the number of machines used to make something.
10. Which of the following is an example of leasing?
  - a. Jose Lopez's shoe store had a record keeper.
  - b. Smith's shoe plant bought a new McKay stitcher.
  - c. Betty's Beautiful Boots Boutique hired two new salespeople.
  - d. The Franklin Shoe Factory rented a lasting machine.

Continued

## TEST A

11. Which of the following describes a change McElwain made in his factory?
  - a. He made shoes in a greater variety of sizes.
  - b. He decreased the number of shoes made but increased their quality.
  - c. He arranged shoe production so that one size and style were worked on in large batches at one time.
  - d. He built a factory three stories high.
12. Even though the use of machines increases the cost of operating a shoe factory, each pair of shoes costs less to produce because
  - a. workers make many more shoes in a day than they could without machines.
  - b. workers make fewer shoes in a day than they could without machines.
  - c. shoes are sold at a loss.
  - d. None of the above is correct.
13. One of the following is an example of the division of labor. Which one?
  - a. Sally, Tony, and Raul work at the same job in a factory.
  - b. Sally, Tony, and Raul work in different parts of the factory.
  - c. Sally, Tony, and Raul work in the same part of the factory.
  - d. Sally, Tony, and Raul each work at a different job in a factory.
14. Profits in the U.S. shoe industry are
  - a. too large.
  - b. increased by paying workers less.
  - c. good, because they enable an industry that is in difficulty to stay in operation.
  - d. bad, because they cause waste.
15. What is piecework?
  - a. A system in which employees are paid according to the amount of work they do.
  - b. A system in which employees may make as many different parts or pieces of a shoe as they wish.
  - c. A system in which each employee receives a share of the factory's profits.
  - d. A system in which each employee makes one part or piece of a shoe.
16. Which of the following statements is true?
  - a. Shoes are made by molding one piece of leather.
  - b. Shoes are made by skilled workers using machines.
  - c. Shoes are made by totally automatic machines.
  - d. It takes several weeks to make a shoe.
17. Unions were formed in the shoe industry mostly because
  - a. workers did not like to produce ready-made instead of custom-made shoes.
  - b. shoe prices declined.
  - c. the masters (or employers) tried to lower wages.
  - d. working with shoemaking machinery caused too many injuries.
18. Which of the following is true of unions in the shoe industry?
  - a. They were welcomed by employers in order to maintain the importance of journeymen.
  - b. The early unions were destroyed because the leaders were convicted of a conspiracy to restrain trade.
  - c. They were among the last U.S. unions to be formed.
  - d. They refused to cooperate with other U.S. unions.
19. The U.S. shoe industry has been
  - a. in a decline.
  - b. doing better than ever.
  - c. going completely out of business.
  - d. doing about as well now as it was twenty years ago.

Continued

## TEST A

20. What effect would raising the tariff on U.S. shoe imports have?
  - a. Foreign-made shoes would cost less.
  - b. Foreign-made shoes would cost more.
  - c. U.S. profits would drop.
  - d. Foreign-made shoes would become more popular.
21. The U.S. government has tried to help the U.S. shoe industry by
  - a. raising the tariff on shoes.
  - b. making loans available.
  - c. buying shoes it does not need.
  - d. forbidding foreign-made shoes from entering the country.
22. Which of the following is true?
  - a. Sales of foreign-made shoes have been going down.
  - b. Machines have eliminated the need for skilled shoemakers.
  - c. Skilled shoemakers are still needed.
  - d. Machines have completely automated the shoemaking industry.
23. Which of the situations below is the most labor intensive?
  - a. Four people work for one day to make one pair of shoes.
  - b. Ten people work for one day to make one pair of shoes.
  - c. Five people work for one hour to make one pair of shoes.
  - d. One person works one day to make one pair of shoes.
24. In the past, the shoe industry was located mostly in
  - a. California.
  - b. far western states.
  - c. midwestern states.
  - d. New England states.
25. What advantages did the use of machinery give U.S. shoemakers?
  - a. Helped lower shoe prices.
  - b. Helped increase productivity.
  - c. Eliminated most of the hard labor of shoemaking.
  - d. All of the above.
26. The price of shoes is determined by
  - a. the availability of leather.
  - b. the attempts of consumers to obtain the best shoes at the lowest possible price.
  - c. the number of shoes for sale.
  - d. all of the above.
27. Which of the following have been suggested as ways to help the shoe industry?
  - a. Raise tariffs and lower prices of U.S.-made shoes.
  - b. Lower tariffs and make loans to U.S. shoemakers.
  - c. Raise tariffs and increase productivity.
  - d. Fire more workers and use fewer machines.

## **"The Story of Shoes": Tests**

### **TEST B**

1. The shoemaking industry depends on
  - a. skilled workers.
  - b. an adequate supply of secondhand leather.
  - c. completely automated factories.
  - d. the importation of parts of shoes.
2. Leather is preferred in shoemaking because
  - a. it is cheaper.
  - b. it is the most readily available material.
  - c. of its ability to "breathe."
  - d. manufacturers can charge more for leather shoes.
3. Imports of foreign shoes have increased rapidly since 1966. What accounted for this?
  - a. U.S. shoe manufacturers stopped making shoes.
  - b. Imported shoes are generally cheaper.
  - c. Shoes made in the United States were sold in other countries.
  - d. U.S.-made shoes became too stylish.
4. Sales losses for U.S. shoes have resulted in
  - a. lower prices to increase sales.
  - b. the closing of many shoe factories.
  - c. an increased supply of skilled laborers to make better shoes.
  - d. an increase in retained earnings.
5. Until the mid-1800s, all shoes were made using
  - a. power tools.
  - b. hand tools.
  - c. machinery.
  - d. grass and animal hides.
6. Which of the following is an example of mechanization?
  - a. Using the McKay stitcher.
  - b. Using a last.
  - c. Using an awl.
  - d. Making a pair of shoes by hand.
7. Throughout history, shoe styles have been closely related to
  - a. unusual shoes with exaggerated features.
  - b. the sex of the wearer.
  - c. the social class and wealth of the wearer.
  - d. the availability of leather.
8. The first shoe factories were
  - a. large buildings where many people worked, called shoe barns.
  - b. barns where horses were shod.
  - c. small buildings called tenfooters.
  - d. buildings for mechanized shoemaking.
9. Leasing was important to the shoe industry because
  - a. leased machinery costs shoe manufacturers nothing.
  - b. shoe manufacturers did not have to tie up large sums of money in the purchase of machinery.
  - c. shoemakers received a royalty for each pair of shoes made by a leased machine.
  - d. machine-made boots were of better quality than hand-made ones, but took longer to complete.
10. The change to mechanization in the shoemaking industry resulted in
  - a. increased productivity.
  - b. increased costs.
  - c. increased labor.
  - d. decreased number of factories.

Continued

## TEST B

11. The changes McElwain made in his shoe factory resulted in
  - a. fewer workers being employed.
  - b. the prices of shoes being increased.
  - c. greater efficiency in shoe manufacturing.
  - d. floor space being doubled.
12. How did mechanization affect shoe buyers by 1900?
  - a. Prices were increased to pay for new machinery.
  - b. The number of different styles of shoes decreased.
  - c. Many shoe sellers went out of business.
  - d. They paid lower prices because productivity increased.
13. What does division of labor mean?
  - a. All employees are specially trained in all tasks.
  - b. Each employee performs a specific task in the total manufacturing process.
  - c. With machines to do the work, employees do not need special training.
  - d. Skills needed for all phases of the shoe industry are easily taught.
14. Profits in the shoe industry
  - a. increase investment and expansion.
  - b. foster innovation.
  - c. encourage the founding of additional shoemaking companies.
  - d. All of the above.
15. Which of the following statements is true?
  - a. Skilled employees in the shoe industry are paid by piecework.
  - b. Only cutters are paid by piecework.
  - c. Only unskilled workers in the shoe factories are paid by piecework.
  - d. Piecework encourages employees to work slowly.
16. Why is the making of a pair of shoes complicated?
  - a. It is all done by machinery.
  - b. It takes a long time.
  - c. It requires highly skilled workmanship.
  - d. One worker follows the shoes through all steps.
17. Shoe workers who belong to unions today are
  - a. members of the Boot and Shoe Workers International Union.
  - b. members attached directly to the national headquarters of the AFL-CIO.
  - c. members of the United Shoe Workers of America.
  - d. members of larger unions in the AFL-CIO that have absorbed the shoe unions.
18. Which of the following is true of unions in the shoe industry?
  - a. They succeeded in pushing wages higher and higher.
  - b. They refused to join national associations of labor unions.
  - c. They were not affected by economic depressions.
  - d. One of the early shoe unions established a related organization for female cordwainers.
19. The decline of the U.S. shoe industry has been caused by
  - a. high production costs.
  - b. cheaper foreign shoes.
  - c. changing styles.
  - d. All of the above.
20. Why do some shoemakers want the government to impose high tariffs on imports of shoes?
  - a. American-made shoes would be more expensive than foreign-made shoes.
  - b. Shoe stores would make less money.
  - c. Foreign governments would raise tariffs in retaliation.
  - d. Foreign-made shoes would be more expensive, thereby encouraging people to buy more American-made shoes.

Continued

## TEST B

21. Which of the following is true?
  - a. The federal government has bought out the U.S. shoe industry.
  - b. The U.S. shoe industry is wealthy.
  - c. Until recently, the U.S. shoe industry has been a model for the rest of the world.
  - d. Korean imports are more expensive than American-made shoes.
22. What changes must the U.S. shoe industry make to compete with imports?
  - a. Hire more workers and raise prices.
  - b. Improve safety conditions in factories.
  - c. Modernize the industry and keep styles current.
  - d. All of the above.
23. A major cause of the increase in shoe prices is that the shoe industry is labor intensive. What does "labor intensive" mean?
  - a. Many unskilled laborers are hired.
  - b. Many more units of labor than of capital or of land are needed to make the product.
  - c. The shoe industry is strictly regulated by workers.
  - d. Most of the work is done with nonhuman energy.
24. Why did many U.S. shoe manufacturing businesses start in New England?
  - a. High concentration of population.
  - b. Availability of cowhides.
  - c. Abundance of water.
  - d. All of the above.
25. What made the U.S. shoe industry so outstandingly successful until recent years?
  - a. Use of tools and machinery.
  - b. Well-paid workers.
  - c. More money available to buy leather.
  - d. More natural resources available.
26. The price of a pair of shoes is partially controlled by
  - a. failure of the shoe industry to produce enough shoes.
  - b. government restraining of shoe workers.
  - c. what consumers are willing to pay.
  - d. All of the above.
27. One important reason why sales of foreign-made shoes have increased is that
  - a. they are generally cheaper than U.S.-made shoes.
  - b. they are made from better quality leather than U.S. shoes.
  - c. the shipping of foreign shoes has decreased.
  - d. the U.S. government encourages imports.

## **APPENDIXES**

## A. Supplementary Materials

### FOR STUDENTS

Clawson, Elmer U. *Our Economy: How It Works*. Menlo Park, CA: Addison-Wesley Innovative Division, 1980.

Teaches economic principles by relating them to case studies of how familiar products are made. Includes student activities in factfinding, analysis, decisionmaking, role playing, and evaluation. Comes with criterion-referenced tests and detailed teacher's guide.

Hacker, Andrew. *Free Enterprise in America*. New York: Harcourt Brace Jovanovich, 1977.

Describes American economic system by using a case studies approach. Takes up pricing, profits, career planning, limited resources, the roles of the consumer, producer, and investor, recession and inflation.

Linder, Bertram. *Economics for Young Adults*. New York: W. H. Sadler, Inc., 1971.

A general survey course in economics for grades 7-9. Deals with consumerism, work, different living standards, business and urban economics.

### Films

*American Enterprise Series*. Modern Talking Picture Service, 5000 Park Street North, St. Petersburg, FL 33709. 5 films. 30 minutes each. Color. 1976.

*People*. An intriguing and entertaining account of how the people of this nation helped shape its destiny. The qualities of Americans that make them unique—both dreams and talents—are explored.

*Land*. Examines the role of land in the economic development of the United States; the evolution of U.S. agriculture from simple subsistence farming to "agribusiness;" the land as a source of natural resources; and the scientific innovations necessary to make natural resources useful.

*Organization*. Reviews examples of how Americans have organized to turn dreams into realities in a growing country. Moves on to discuss computerization. Narrated by William Shatner as a successful businessman involved in building a shopping center.

*Innovation*. Illustrates the role of innovation in America's technological achievements. Describes the receptivity of our economic system to invention and explains how investments of capital resources give people the incentive and freedom to innovate. Discusses modern-day innovations as well as those from an earlier period, e.g., Edison, McCormick, Morse.

*Government*. Past, present, and future impact of government in a mixed economy. Discusses the increasingly important role of government in the United States. Includes material on defense, welfare, housing, labor, and transportation.

*Economic Geography: Comparing Two Nations*. BFA Educational Media, P.O. Box 1795, Santa Monica, CA 90406. 10 minutes. Color. 1971.

The economies of two nations and therefore the standard of living and life styles of the people are compared. Both nations have similar climates, produce the same foods, speak the same language, and have similar histories. Yet country A has five times the income of country B. Reasons for the differences in income are examined in the film.

*Fergi Builds a Business Series*. Walt Disney Educational Media Company, 500 South Buena Vista Street, Burbank, CA 91521. 4 films. Color.

*If the Fergi Fits, Wear It*. 23 minutes; 1976.

*Fergi Goes Inc.*! 25 minutes; 1977.

*Fergi Diversifies*. 24 minutes; 1978.

*Fergi Meets the Challenge*. 22 minutes; 1979.

Demonstrates the principles of a competitive market economy by following the experiences of a group of young entrepreneurs as they attempt to set up and run a T-shirt factory. The partnership must deal with insufficient cash flow, an expanding payroll, zoning regulations, quality control, unionization, overexpansion; obtains bank loans; incorporates; conducts a mail order campaign; and at last successfully develops and markets a new product line.

*Kingdom of Mocha*. Modern Talking Picture Service, 5000 Park Street North, St. Petersburg, FL 33709. 26 minutes. Color. 16 mm.

Using a mythical island as its setting, this cartoon introduces students to basic economic concepts such as supply and demand in an entertaining way. Mocha's inhabitants experience rapid change as

their economy develops from one of primitive barter to one with complex modern-day problems.

*Mrs. Peabody's Beach.* Walt Disney Educational Media Company, 500 South Buena Vista Street, Burbank, CA 91521. 30 minutes. Color. 1971.

A witty story of a teenage boy who starts a surfing business to raise money for his college education. Numerous economic concepts are developed including scarcity, opportunity costs, marginal revenue and marginal cost, fixed and variable costs, law of diminishing returns, diminishing utility, and entrepreneurship. Discussion after the film will help reinforce the economic concepts presented.

*The People on Market Street.* Walt Disney Educational Media Company, 500 South Buena Vista Street, Burbank, CA 91521. Color. 1977. (Also available as filmstrips.)

*Scarcity and Planning.* 17 minutes.

*Cost.* 19 minutes.

*Demand.* 21 minutes.

*Supply.* 20 minutes.

*Market-clearing Price.* 23 minutes.

*Wages and Production.* 18 minutes.

*Profits: a Lure and a Risk.* Encyclopedia Britannica Educational Corporation, Instructional and Library Services, 425 North Michigan Avenue, Chicago, IL 60611. 8 minutes. Color. 1977.

Uses song and dance to show how business profits are the backbone of a market economy.

*Trade-Offs.* Agency for Instructional Television, Box A, Bloomington, IN 47401. 15 TV/films. 20 minutes each. Color. 1978. (See also listing under Filmstrips.)

Designed to help students think their way through economic problems and increase their understanding of economics. Using dramatization and special visuals, each of the fifteen programs takes up a fundamental economic problem relevant to the daily life of the child, emphasizes the economic principles and reasoning processes involved in dealing with the problem, and introduces similar unresolved problems to stimulate classroom discussion and follow-up activities. This series is sponsored by AIT, the JCEE, and the Canadian Foundation for Economic Education.

## Filmstrips

*It's a Capital Idea.* Walt Disney Educational Media Company, WDEMCO, 500 South Buena Vista Street,

Burbank, CA 91521. 4 filmstrips. 11 minutes each. Color.

Uses cartoon art and a caveman character to trace the role of capital and the history of capital formation from primitive societies to the present. Defines the differences and interactions between political and economic systems. Stresses a purely competitive market economy.

*Market Economy.* BFA Educational Media, P.O. Box 1795, Santa Monica, CA 90406. 6 filmstrips. Color. 1971.

Deals with relationships between producers and consumers and between environment and products in a market economy. Each strip explores the life of a different individual—subsistence farmer, craftsman, specialized farmer, specialized vendor, traveling vendor, and store owner—and their dependence on the market. Family life, transportation, cultural and environmental conditions are examined.

*Our Labor Force.* Teaching Resource Films, 2 Kisco Plaza, Mt. Kisco, NY 10549. Color. Cassette or record. 1976. Includes teacher's guide.

Examines the meaning, the size, composition, and development of the U.S. labor force. Explains why the size of the labor force fluctuates.

*The Social Sciences: What Is Economics.* Guidance Associates, 150 Clearbrook Road, Elmsford, NY 10523. 2 filmstrips. Cassette or record.

Strengthens student understanding of the traditional, command, and market economic systems. Illustrates the relationship of economic decision-making to social goals and values. Examines basic economic forces and mechanisms.

*The Role of Consumers.* Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036. 2 filmstrips. Cassette or record. 1976.

Explains importance of consumer credit, influence of consumer buying behavior on pattern of production and overall economic stability, and problems the consumer faces.

*Trade-Offs.* Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036 10 filmstrips/cassettes. Color. 1979.

*Trade-Offs. (See under Films.)*

*Unit I—Decision-Making:* "Choice"; "Making Decisions"; "Give and Take."

*Unit II—Productivity:* "Less or More?"; "Why Specialize?"; "Why Trade? Does It Pay?"

*Unit III—Buyers, Sellers, and Markets:* "To Buy or Not to Buy?"; "To Sell or Not to Sell?"; "... At What Price?"; "Problems with the Market."

## Games and Simulations

Kourilsky, Marilyn. *Beyond Simulation*. UCLA Center for Economic Education, Los Angeles, California, 1977.

Students learn how an economic system operates by creating one in their classroom. Students are presented with situations that challenge them to develop institutions to facilitate the smooth operation of their system. They create stores, businesses, and banks among other situations.

*New City Telephone Company*. Simulation. Available from Simile II, 218 Twelfth Street, P.O. Box 910, Del Mar, CA 92014.

Students assume roles as members of management of the New City Telephone Company. They engage in group discussion, decision-making, goal-setting, listening, and note taking.

## Other Materials for Students

*The American Economic System . . . and Your Part in It*. The Advertising Council, 825 Third Avenue, New York, NY 10022. (Free)

A 24-page brochure describing the free enterprise economy and illustrated with "Peanuts" cartoon characters.

*Career World*. Curriculum Innovations, Inc., 501 Lake Forest Avenue, Highwood, IL 60040. Monthly magazine.

Gives information on several careers in each issue. Career trends are also regularly discussed.

Collier, Alyce J. *Annual Report for Young People*. Wheelabrator-Frye Corporation, Hampton, NH.

The company's annual report rewritten so as to be appealing; and understandable to children.

Herbst, Judith; Annie Mueser; and Ruth Handel. *Real Life Consumer Economics*. Scholastic Book Services, 50 West 44 Street, New York, NY 10036. 1979.

A workbook of activities and brief explanations of topics in consumer education such as budgeting, comparison shopping, selecting a doctor, savings accounts, checking accounts, taxes. Emphasizes written exercises.

*Introducing Economics*. Federal Reserve Bank of Boston, Public Information Department, Boston, MA 02106. 1977. (Free)

A 52-page illustrated book treating basic concepts with simplicity and concrete examples.

Jackstadt, Stephen, et al. *The Adventures of Primero Dinero*. Chicago: Follett, 1971.

An economics comic book for grades 7-12. Traces the adventures of Primero Dinero after he is shipwrecked and forced to build an economy on a desert island. In the process, teaches about resources, scarcity, supply, demand, and about costs and prices as allocators of resources.

\_\_\_\_\_. *Superheroes of Macroeconomics*. Chicago: Follett, 1976.

An economics comic book for grades 7-12. Takes up inflation, recession, and the role of prices, plus the pros and cons of price control. Designed to give students a general understanding of how spending, tax policy, money, GNP, prices, and unemployment relate to each other.

*Life of a Dollar Bill*. Federal Reserve Bank of New York, Public Information Department, 33 Liberty Street, New York, NY 10045. (Free)

A poster plus a comic book that show how currency and coin enter into circulation and their relation to the GNP.

*Productivity . . . and Your Part in It*. The Advertising Council, 825 Third Avenue, New York, NY 10022. (Free)

A brochure explaining productivity and how it affects Americans and their economic system.

*The Story of Money*. Federal Reserve Bank of New York, Public Information Department, 33 Liberty Street, New York, NY 10045. (Free)

A 24-page booklet that uses cartoons to explain the functions of money. It touches on topics such as barter, commodity monies, early gold and silver monies, and colonial America's experiences with money.

Wilson, W. Harmon and Roman F. Warmke. *Life on Paradise Island*. Glenview, Ill.: Scott, Foresman, 1970.

A book that teaches basic economic concepts through a fictional account of the economic development of a primitive society. Begins with barter and trade, moves on to the division of labor, money, laws, taxation, etc. Illustrated with cartoon-like drawings.

## TEACHER REFERENCE MATERIALS

*American Enterprise Teaching Notes*. Playback Associates, 708 Third Avenue, New York, NY 10017. (Free)

A bimonthly publication featuring articles on selected topics in economics and extensive presentations of games and classroom activities suggested by teachers throughout the country.

*Economic Education Experiences of Enterprising Teachers*. Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036.

Descriptions of award-winning entries and brief summaries of other ideas submitted in the annual National Awards Program for Excellence in Teaching Economics.

*Economically Speaking . . .* Newsletter of the Center for the Development of Economics Education, University of the Pacific, School of Education, Collier Hall, Stockton, CA 95211. (Free)

Newsletter for teachers in grades 7-9. Each issue has a complete description of at least one teaching activity.

Harter, Charlotte; David M. Nelson; and John P. Farrell. *Audiovisual Materials for Teaching Economics*. 3rd edition. New York: Joint Council on Economic Education, 1980.

Substantial expansion and revision of earlier editions. Annotates more than 600 AV items for economic education in kindergarten through college, arranged by topic. Describes the process for choosing the entries, contains list of items by grade level, and provides names and addresses of publishers and distributors.

**MASTER CURRICULUM GUIDE IN ECONOMICS FOR THE NATION'S SCHOOLS**. New York: Joint Council on Economic Education.

*Part I. A Framework for Teaching Economics: Basic Concepts*. 1977.

Concise statement of the basic concepts and generalizations for teaching economics. Summarizes the structure and substance of economics as understood

by the majority of economists and economic educators.

### Part II. *Strategies for Teaching Economics*

• *Basic Business and Consumer Education (Secondary)*. 1979.

Presents lessons suitable for either basic business or consumer education courses that aim at preparing students to use sound economic analysis in making decisions as consumers, producers, and citizens. All the lessons are recommended for ninth grade.

• *United States History (Secondary)*. 1980.

Contains an overview for teachers and lessons that exemplify how economics can provide an analytic framework for courses in United States history. Most of the economics concepts emphasized are covered in leading American history texts for secondary schools. Some of the lessons are recommended for eighth and ninth grades.

• *World Studies (Secondary)*. 1980.

Understanding world studies/world history demands systematic knowledge about the different types of economic systems in the world and how they developed, an acquaintance with how those systems operate, and a grasp of some of the world's current economic problems. This volume contains lessons, some specifically recommended for ninth grade, that are designed to accomplish those objectives.

*Teaching Economics in American History: A Systems Approach*. New York: Joint Council on Economic Education.

An integrated program to help secondary school teachers incorporate facts, concepts, principles, and problems of economics into American history courses.

*Teacher's Manual*. 1973. Twenty-one topics in American economic history for use in conjunction with secondary school history texts. Each topic is introduced by a brief account of the historical period in which the economic event or problem occurred. Enables teachers to relate episodes of the past to current issues.

*Color Slides*. 1973. A set of 120 slides keyed for use with the above manual. Each set includes a 20-page teacher's guide and a copy of the Teacher's Manual.

## B. Student Glossary

NOTE: This glossary includes many key terms. Keep it in good condition.

Name \_\_\_\_\_

Class \_\_\_\_\_

**ASSET:** A physical property or a right that is worth money.

Examples: Physical—a building, machine, truck; right—patents, goodwill.

**AUTOMATION:** A mechanical process that produces goods or services with the help of computers or self-regulating controls. Automation is a term that describes almost all mechanical work performed with little or no use of human effort.

Example: Machinery that cleans, fills, and caps soda bottles.

**AVERAGE:** There are three types of averages—the mean, the mode, and the median. Most people use the mean. It is the *sum* of a group of items divided by the *number of items* in the group.

Example: If one person has \$3.00, another has \$4.00, and a third has \$5.00, together the three people have a total of \$12.00. The average (or mean) amount is found by dividing the sum (\$12.00) by the number of people. The average is thus \$4.00.

**BARTER:** The direct trade of one good or service for another good or service without the use of money.

**BASIC ECONOMIC PROBLEM:** Only a limited amount of economic resources is available at any given time. Therefore, there are never enough resources to produce all the goods and services that all the people may want. The limited amount of resources compared with the demand for the uses to which they can be put results in "scarcity," the basic economic problem.

**CHOICES:** Because economic resources are limited (see **BASIC ECONOMIC PROBLEM**), each society must choose the purposes for which to use them. Similarly, individuals must choose which wants they will satisfy with their limited incomes.

**COMPETITION:** The condition or state of a market when many sellers offer the same or very nearly the same products and have no control or influence over market price. They therefore compete for buyers by providing the highest quality of

goods or services at the lowest possible prices. Under competitive conditions they would not be able to sell if they did not do so.

**CONSUMER GOODS:** Finished products that people purchase for their own use.

**CONSUMER PRICE INDEX (CPI):** Measures changes in the cost of a specified quantity of goods and services purchased by a typical family. The index compares the cost of those goods and services in the stated year with their cost in an earlier period called the base year.

Example: If the specified quantity of consumer goods and services cost \$100 in 1967 (the base year) and \$247 in 1980, then in 1980 the Consumer Price Index equaled 247 (\$247 is 247 percent of \$100.)

**DEMAND:** The amounts of a good or service that buyers are willing to purchase at various prices at a given time.

**DEPRESSION:** A period of prolonged and severe decline in production and other measures of economic activity. Three important results of such declines are a high rate of unemployment of labor, a large amount of unused productive resources such as factories and mines, and a great many business failures.

**DIVISION OF LABOR:** The separation into individual tasks of the total work required to produce a good or service. The tasks are interrelated and after all are performed they result in a completed product or service. Division of labor increases efficiency and productivity. See **EFFICIENCY; PRODUCTIVITY**.

**ECONOMIC GROWTH/DECLINE:** The increase or decrease in the total production of goods and services in a country during a given period compared to a previous period. The usual measure is the "gross national product." See **GROSS NATIONAL PRODUCT**.

**ECONOMIC INCENTIVES:** Rewards, usually monetary, for greater effort, efficiency, or innovation.

Example: "Incentive wage systems"—workers

are paid for every operation they complete, and therefore earn more as the amount they produce in a given time increases. See also PIECEWORK.

**ECONOMIC SYSTEM:** The way in which a society organizes itself to answer the basic economic questions of how, what, and for whom to produce.

**ECONOMICS:** The study of how society chooses to use its scarce resources to produce the goods and services it desires.

**EFFICIENCY:** The production of as many goods and services as possible from the fewest possible resources.

**EXCHANGE:** The act of trading one good or service for another either by barter or through the use of a medium of exchange such as currency.

**EXPORTS OF MERCHANDISE:** Goods produced in one country that are transported to another country for sale. One country's "exports" are another country's "imports."

**GOVERNMENT INTERVENTION AND REGULATION:** Direct government involvement in the economy to influence economic actions or the results of them.

Examples: "Intervention"—putting quotas or tariffs on imports, setting minimum prices for certain agricultural products, extending economic assistance to depressed areas, etc. "Regulation"—the enforcement of certain standards: for example, for the purity of foods and drugs, for the environment, for rates charged by utilities.

**GROSS NATIONAL PRODUCT:** A country's production of goods and services in a given period, usually a year.

**IMPORTS OF MERCHANDISE:** Goods sold in one country that have been produced in another country.

Examples: Olive oil made in Greece or shoes made in Taiwan but sold in the United States or other countries.

**INDEX NUMBERS:** Statistics that describe changes in a set of figures such as for prices or physical quantities compared to the like set in a base year.

Example: See CONSUMER PRICE INDEX (CPI).

**INFLATION:** A prolonged upward movement in the general level of prices. During a period of inflation a given amount of money will buy fewer goods or services as time goes on. In other words, the purchasing power of money will decline.

**INTERDEPENDENCE:** People, businesses, regions, or countries specialize in producing particular goods or services or doing specific tasks needed

to produce those goods or services. As a result, they must rely on each other to obtain whatever they do not produce themselves.

Example: The automobile industry counts on battery makers to provide a constant supply of batteries in order to produce finished cars and trucks without interruption. If battery production were halted the automobile makers would at some point have to stop production and lay off workers. The battery industry, in turn, counts on a constant supply of lead from lead mines. The lead mines count on the supply of mining machinery, etc., etc.

**INVESTMENT:** The process of obtaining machines, buildings, vehicles, or land in order to begin production, to increase production, or to improve the efficiency of production.

Example: The purchase by a shirt manufacturer of a machine to put buttons on shirts in the hope that production will rise and profits will increase.

**LABOR:** The natural talents, learned skills, and the efforts of human beings applied to the production of goods and services.

**LABOR INTENSIVE:** Production that is carried out using considerably more labor than capital or land.

**LAW OF DEMAND:** As the price of a good or service declines, the amount buyers demand at each price increases. As the price rises, the amount buyers demand at each price decreases. (It is assumed that all conditions affecting demand, other than price, remain the same.)

**LAW OF SUPPLY:** As the price of a good or service rises, the amount that suppliers offer at each price increases. As the price declines, the amount suppliers offer at each price decreases. (It is assumed that all conditions affecting supply, other than price, remain the same.)

**LEASING:** A system that allows a party to use property, such as a machine, without buying it. Instead, the user pays a fee to the owner.

**MARKET:** The interactions of all the buyers and sellers of a particular good or service. The market need not be located in any single place so long as an exchange of information about the prices and quantities bought and sold takes place.

**MARKET SYSTEM:** An economy in which decisions of what to produce, how much to produce, and for whom to produce are determined by prices. The prices result from the interaction of supply and demand in a market with many buyers and sellers.

**MECHANIZATION:** The introduction of machinery into the production process as a substitute for human or animal labor.

**OPPORTUNITY COST:** For businesses, it typically consists of what is not produced when productive resources are devoted to supply one good or service rather than another. For consumers, it typically consists of what cannot be purchased because of a decision to use the available money to buy something else. In other words, the opportunity cost of a decision is the next most desirable option.

Examples: A barrel of crude oil that is refined into gasoline cannot be used to make chemicals. Students who use their limited weekly allowances to buy records or tapes cannot use the allowance to buy jogging shoes.

**PER CAPITA:** A Latin term that means "per person." A per capita figure is derived by dividing a total by the number of people involved.

Example: The class budget for a party is \$30.00. There are 30 students in the class; therefore, each student's share of the budget, or per capita share, is  $\$30.00 \div 30$  or \$1.00.

**PIECEWORK:** Payment to a worker for each item produced or for the amount of work done rather than according to the time spent on the job.

Example: Wages paid to workers who cut leather for shoes that are based on the number of pieces they cut.

**PRICE:** The market value of a good or service. In an economy in which money is used, prices are expressed in terms of money. In an economy in which barter (see above) is used, prices are expressed in terms of amounts of other goods and services.

**PRODUCTIVE RESOURCES:** The "factors of production" used to produce goods and services. The factors are (1) land (including raw materials); (2) labor (all human resources); and (3) capital (tools, machines, buildings, vehicles).

**PRODUCTIVITY:** The amount of a good or service produced from a given quantity of natural, human, or capital goods resources in a given period.

**RECESSION:** A relatively mild and short period of decline in production and other measures of economic activity. See DEPRESSION.

**RETAINED EARNINGS:** The amount of money kept by a business after it pays taxes on its profits and dividends to its stockholders. Retained earnings are generally used to expand the business or to buy more up-to-date machinery or buildings or are kept as a reserve for emergencies.

**ROYALTY:** A fee paid by the user to the owner or holder of a patent or copyright on a machine, mine, film, etc. The fee is usually based on the amount of use (e.g., units produced by a machine, output of a mine, showings of a film).

**SCARCITY:** In economics, the lack of sufficient resources to produce *all* the goods and services that people desire.

**STANDARD OF LIVING:** The amount and the quality of the goods and services—which may include luxuries and extras as well as necessities—that the average individual or family in a nation can afford.

Different income or social groups *within* a nation are likely to have different standards of living.

**SUPPLY:** The amounts of a good or service that producers are willing to sell at various prices at a specific time.

**TARIFF:** A tax (or custom duty) on imports that is imposed by a government.

**TAX:** A compulsory payment to a government. The activities of the U.S. government are chiefly financed by taxes, especially by taxes on personal and corporate income.

**VOLUNTARY EXCHANGE:** Trade by means of money or barter in which both parties take part voluntarily and both gain.

**WANTS:** The needs or desires for goods or services. In a money economy, people's wants become "demands" if they have sufficient funds. See DEMAND